

CA3 ON HW A25

A35E

JAN. 10 1991

URBAN/MUNICIPAL

CHAIRMAN'S ADVISORY
COMITTEE ON
ENVIROMENTAL ISSUES



CA3 ON HW A05 C51 C3 E
1991 CIL
URBAN/MUNICIPAL

Ruth Greenwood
Hamilton Public Library
Urban Municipal Collection,
2nd Fl.
55 York Boulevard
Hamilton, Ontario
L8R 3K1

**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, January 10, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

URBAN MUNICIPAL

JAN 17 1991

GOVERNMENT DOCUMENTS

JAN. 10/91

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - December 13, 1990

2. DELEGATION

Hamilton Air Quality Report (M.O.E.) 1988

Mr. Dobroff from the Ministry of the Environment to address committee members.

3. BUSINESS ITEMS

Reducing Excess Packaging

- a) That fast food restaurants provide reusable dishes and cutlery for sit-down customers;
- b) That the province impose a special tax on disposable take-out food containers, with revenues going towards waste-reduction efforts;
- c) That supermarkets reduce their excess packaging.

4. FOR THE INFORMATION OF THE COMMITTEE

- a) Correspondence from Mrs. Liz Crozier-Organ, Dundas, re: Eradication of Marsh - King Street and Olympic Drive, Dundas
- b) Correspondence from Dr. Paul Rapoport, re: Aircraft noise

5. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
August 9, 1990	Hospital Incinerators and Biomedical Wastes MOE Staff to be invited to discuss	Committee to compose letter
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon
October 12, 1990	Proposed Composter To Be Built In The Town Of Dundas	Tabled

6. ADJOURNMENT

16)

**MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m. on Thursday, December 13, 1990 in the Committee Room, 15th Floor, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillor B. Hinkley
Wm. Pedder, R. Baetz, B. Thompson,
K. Murphy, B. McHattie

Absent with Regrets: Councillors G. Copps, H. Merling
B. Vanderbrug, G. Birchall, P. Muldoon, C. Katz

Also Present: W. M. Carson, C.A.O., J. Halliday, P. Jensen, J. Daffern,
C. McEwen, D. Edwards, N. Ragettlie, Dr. Gibson, J. Barnett,
K. Pidsadny, K. Allen

1. GENERAL

- a) **Declaration of Interest re: Municipal Conflict of Interest Act (None)**
- b) **Minutes of Chairman's Advisory Committee on Environmental Issues Committee Meeting - November 8, 1990**
(Thompson/Pedder) be received and adopted as presented. **CARRIED**
- c) (Baetz/Thompson)
That Outstanding Business Item "Bike Paths - CP Railway Property" be referred to the Natural Areas Sub-Committee. **CARRIED**

2. DELEGATIONS

2.1 ECO LOGIC TECH. INC. Proposal - Re: Lab Scale Demonstration of Contaminated Harbour Sediment Treatment Process

Ms. Jillian Daffern and Mr. Craig McEwen from Eco Logic made a presentation to members.

Members were introduced to the pilot scale demonstration unit by way of a slide presentation. Environmental science, human toxicology, chemical analysis and hazardous waste destruction technologies were addressed. Hamilton Harbour was chosen as an area to demonstrate the use of the Eco Logic Pilot Project with funding provided by the Federal Government. Presently, the site is at Pier 15, Hamilton Harbour. Seventy-five percent of the funding for the project is sponsored by the Department of National Defence.

(Murphy/McHattie)

- a) That committee receive the report, acknowledging its endorsement that a Canadian firm is involved in the role of the Hamilton Harbour clean-up;
- b) That, before any decision is made, committee is anxious to receive results of this testing. **CARRIED**

2.2 City of Toronto's CFC By-law

Dr. B. Gibson discussed this with committee members.

(Murphy/McHattie)

- a) That the Health Department and Legal Services report back to committee on the process of enabling Legislation and the passing of a by-law on banning the use of CFC's in the Regional of Hamilton-Wentworth;
- b) That staff prepare a timetable and reporting structure in order to establish and enforce this by-law. **CARRIED**

2.3 Hamilton-Wentworth Natural Areas Inventory

Brian McHattie addressed committee members on the physical aspect and educational component of the Natural Areas Inventory Project. Members were updated on the Natural Area strategy of identifying natural areas that are sensitive areas through surveys, documenting results and entering data on a system base of the Ministry of Natural Resources. The Geographical Information System G.I.S. takes the data found, by means of graphs, and highlights the inventory in specific areas of the survey. A two-volume report will eventually be circulated to the Ministry of Natural Resources, Ministry of the Environment and other related agencies.

The educational component will address the importance and significance of the environment. It was stressed that there are 366 species of birds living within a 40 kilometre circle in the Region. The Naturalist Club is preparing a display and slide presentation for public viewing in local malls, along with posters and T-Shirts, "What's Wild in Hamilton-Wentworth".

NEW BUSINESS #1

Mr. C. Farrauto, Hamilton Conserver Society, made a brief presentation to members. Members were advised that in future, the Conserver Society will be requesting committee support the following:

- i) reusable and recyclable materials in fast food restaurants
- ii) Provincial Tax on high users with revenues applied to waste reduction efforts
- iii) supermarkets reducing excess packaging. (No Attachment)

3. BUSINESS ITEMS

3.1 Draft of the City of Toronto's Water Conservation By-law

(Baetz/McHattie)

That this item be referred to the Water Quality Sub-Committee and Finance staff for their review and comment. **CARRIED**

NEW BUSINESS #2

Water Quality Sub-Committee of the Chairman's Advisory Committee on Environmental Issues

(Murphy/Thompson)

That this item be received as information.

CARRIED

NEW BUSINESS #3

Steetley Landfill Site (K. L. Murphy, Water Quality Sub-Committee)

(Murphy/Pedder)

That this item be received as information.

CARRIED

NEW BUSINESS #4

Review of Mr. F. Dobroff Air Quality Report - M.O.E.

Mr. Jim Barnett from the Air Quality Sub-Committee reported on the overall quality of the report.

(Thompson/Murphy)

That this item be received as information.

CARRIED

Members B. McHattie and R. Baetz wished to be recorded as being OPPOSED to this item.

Members requested that Mr. F. Dobroff be invited to the next Chairman's Advisory Committee on Environmental Issues meeting.

NEW BUSINESS #5

Correspondence from Ms. Marina Martin, representing and organization H.O.P.E. from Haldimand-Norfolk, with respect to the construction of waste incinerators in Haldimand-Norfolk.

The committee requested that Ms. Martin be contacted regarding her correspondence on the construction of the waste incinerator in Haldimand-Norfolk and any action that is being requested of this committee.

NEW BUSINESS #6

**United Nations/World Congress of Local Governments for a Sustainable Future -
New York City, September 4 - 7, 1990.**

Report by Councillor D. Ross.

(McHattie/Baetz)

That this item be received as information.

CARRIED

**3.2 Chlorofluorocarbons and Halon Task Force Report, City of Winnipeg, July
1989**

(Baetz/Murphy)

That this report be referred to appropriate staff.

CARRIED

4. FOR THE INFORMATION OF THE COMMITTEE

(McHattie/Baetz)

That the following items be received:

- a) Correspondence from W. M. Carson, C.A.O. regarding "Administrative Support for Chairman's Advisory Committee on Environmental Issues"
- b) Correspondence from Mr. P. J. Earl, Director of Communications and Public Affairs, Dofasco Inc., regarding a video on steel can recycling and related materials
- c) Correspondence from the Corporation of the Township of Glanbrook regarding Suggestions to Council on Recycling
- d) Correspondence from Ontario Hydro concerning the Lakeview Thermal Generating Station (Coal Ash Management Study - Public Information Centres) Council referral of Nov. 20, 1990, Communication #3
- e) Resolution from the Regional Municipality of Durham - "General Welfare Assistance Costs" - Council referral of Nov. 20, 1990, Communication #3

- f) Correspondence from the Banff Centre for Management - Seminar on Fostering Sustainable Economic Development through Community Leadership - January 27 to February 1, 1991
- g) Newspaper article from Bill Pedder - "Ecological Catastrophe Ahead - Soviet Official"
- h) Newspaper article from Bill Pedder - "Nuclear Waste to be stored deep in Canadian Shield"
- i) State of the Environment Report 1990, and Summary Report

CARRIED

5. ADJOURNMENT

On motion (Murphy/Baetz) the meeting adjourned at 11:30 a.m.

CARRIED

Chairman

Secretary



3.1

Conserver Society
of Hamilton and District Inc.

c/o 58 Tisdale St. N.
Hamilton, Ontario L8L 5M4

December 12, 1990

Hamilton-Wentworth Chairman's
Advisory Committee on the Environment

Dear Committee Members:

The Conserver Society of Hamilton and District is an environmental group which has been addressing local environmental issues for 21 years. We are joining with a coalition of environmental groups across Ontario, under the umbrella of Environmental Action Ontario, to address the issue of excess packaging.

Environmental Action Ontario has identified three goals aimed at reducing excess packaging:

- 1) Fast food restaurants should provide reusable dishes and cutlery for sit-down customers.
- 2) The province should impose a special tax on disposable take-out food containers, with revenues going towards waste reduction efforts.
- 3) Supermarkets should reduce their excess packaging.

Groups across Ontario are approaching their local governments for endorsement of the above goals. These endorsements will be taken to the provincial government, to strengthen our request for their implementation of these goals.

We hereby ask for your endorsement of these goals. We also ask that you recommend their endorsement by the Hamilton-Wentworth Regional Council.

If you require any further information regarding this request, please contact one of the committee members listed below.

Yours Sincerely,

For the Conserver Society
of Hamilton and District

Chuck Farrauto	577-1961
Deanna MacKinnon	385-4343
Barbara MacKinnon	565-1447

FAST FOOD POLL RESULTS

Total # polled across Ontario = 3884

#	S. Agree	Agree	Disagree	S. Disagree	No Opinion
#5	58%	33%	3%	1%	5%
#6	65%	28%	3%	1%	3%
#7	51%	40%	4%	1%	4%
#8	52%	36%	5%	1%	6%
#9	9%	20%	29%	39%	3%
#10	35%	33%	10%	5%	17%
#11	18%	40%	24%	6%	12%
#12	23%	53%	12%	2%	10%
#13	50%	36%	6%	2%	6%
#14	39%	35%	12%	5%	9%

Suggested Interpretations of Data:

- 65% of those polled strongly agree that we live in a throw-away society (#6: Strongly agree)
- 88% of respondents agree that throw-away packaging uses up scarce natural resources (#8: Strongly agree and agree)
- 68% disagree that disposable packaging is rarely found on roadsides (#10: Strongly agree and agree)
- 58% feel that fast food restaurants would get more sit-down customers if food were served on reusable dishes (#11: Strongly agree and agree)
- 53% agree that many jobs will be created if fast food restaurants washed their dishes (#12: agree)
- 86% support fast food restaurants serving sit-down customers on reusable dishes (#13: Strongly agree and agree)
- 74% approve of having an environmental tax on fast foods served in throw-away containers (#14: Strongly agree and agree)

Top Ten Pollers:

- | | |
|-------------------------------------|----------------------------------|
| 1. Env. Action Toronto (770) | 6. Clean North, S.S. Marie (194) |
| 2. Markham-Vaughan E. A. (400) | 7. E. A. Ottawa (190) |
| 3. County of Lanark E.A. Net. (335) | 8. Kingston E. A. Project (175) |
| 4. EAO Leeds-Grenville (265) | 9. E.A. Oshawa-Whitby (154) |
| 5. Uxbridge Conserv. Assoc. (210) | 10. E.A. Kitch.-Waterloo (135) |

All The Contributing Groups (no Order): -28 Groups Total

- | | |
|----------------------------------|------------------------------|
| Millbrook-Cavan Env. Watch | Lorelei Gloor, Port Stanley |
| M.A.E.G., Mitchell. | E.A. Barrie |
| Grassroots Albany | Rideau E. A. League |
| Conserv. Soc. of Hamilton & Dis. | E.A.O. Burlington |
| Niagra Citizens for Modern W.M. | Conserv. Society-Flamborough |
| Anti-Pollution Group, Toronto | Muskoka Recycling Assoc. |
| E.A. Scarborough | Wallaceburg Clean Water |
| Stratford-Perth Env. & Eco. Com. | Nipissing Env. Watch |
| T.R.A.I.D., Tottenham | E. A. Peterborough |

*** Sorry About The Delay-- Some Groups Didn't Get the Results Until Friday and Monday.... Good Luck With The Press!!!!

FAST FOOD RESTAURANT POLL

The Conserver Society of Hamilton and District, under the umbrella of Environmental Action Ontario, is surveying local attitudes about garbage issues. We thank you for taking the time to fill out this brief questionnaire.

PART A

1. How old are you? under 18____ 18-25____ 25-40____ 40-65____
over 65____
2. Are you male____ female____?
3. Which is your highest level of education? Public school____
High school____ Community college____ University____ Other____
4. What type of housing do you live in? Apartment____ Rental
house____ Own House____ Room____ Housing Co-op____

PART B

Please respond to the following statements by circling your response.

5. Our municipality is running out of landfill sites for our garbage.
strongly agree agree disagree strongly disagree no opinion
6. We are a "throw-away society".
strongly agree agree disagree strongly disagree no opinion
7. Almost half of the average household's garbage is made up of packaging materials.
strongly agree agree disagree strongly disagree no opinion
8. Throw-away packaging materials use up scarce natural resources.
strongly agree agree disagree strongly disagree no opinion
9. Disposable packaging is rarely found along the roadsides of our community.
strongly agree agree disagree strongly disagree no opinion
10. Hot foods and beverages served in reusable ceramic dishes taste better than foods served in throw-away cardboard and polystyrene containers.
strongly agree agree disagree strongly disagree no opinion

(over)

11. If fast food companies served their sit-down customers with food on reusable plates and cutlery, more people would choose to eat in the restaurant rather than ordering take-out food in throw-away containers.

strongly agree agree disagree strongly disagree no opinion

12. If all fast food outlets in our community washed their own (reusable) dishes instead of using throw-away containers, many jobs would be created.

strongly agree agree disagree strongly disagree no opinion

13. Fast food restaurants should serve their sit-down customers on reusable plates and cutlery.

strongly agree agree disagree strongly disagree no opinion

14. If customers choose take-out food in throw-away containers instead of eating in the restaurant on reusable plates, they should assume the extra disposal costs to society by paying a tax on those take-out containers.

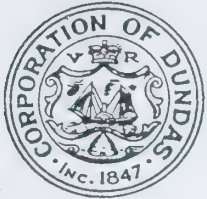
strongly agree agree disagree strongly disagree no opinion

Additional comments: _____

Thank you for taking the time to participate in this survey.

Please return by November 10, 1990 to:

Conserver Society of Hamilton and District Inc.
c/o 58 Tisdale St. N.
Hamilton, Ontario
L8L 5M4



CORPORATION OF THE TOWN OF DUNDAS

OFFICE OF THE CLERK
SUSAN L. STEELE, TOWN CLERK

60 MAIN STREET, DUNDAS, ONTARIO L9H 2P8 (416) 628-6327, Ext. 201
MAILING ADDRESS: P.O. BOX 8584, DUNDAS, ONTARIO L9H 5E7

4.1(a)

December 11, 1990

Mrs. Liz Crozier-Organ,
12B Matilda Street North,
Dundas, Ontario.
L9H 2Y8

Re: Possible eradication of Marsh -
King Street and Olympic Drive
Our File No. 10.58.01

Dear Mrs. Crozier-Organ:

Please be advised that your letter dated July 5th which was referred to the Planning and Development Committee was considered at the November 21st meeting. At that time it was determined that your concerns were a Regional matter.

The Town Council endorsed this at its meeting on December 3, 1990.

The pictures you submitted with your letter are being returned at this time and a copy of your letter has been forwarded to the Regional Municipality of Hamilton-Wentworth as information.

I would suggest that if you wish to address a Committee of the Regional Council you contact Mr. R. Prowse, Regional Clerk, directly.

Yours truly,

(Ms.) Susan L. Steele, A.M.C.T.
Town Clerk

SLS:jr

Attachment

cc: Mr. R. Prowse, Regional Clerk

RECEIVED

DEC 17 1990

REGIONAL CLERKS OFFICE

(9)

10.58.01

12B Matilda St. North
Dundas, Ontario
L9H 2Y8

July 5,
1990

Town of Dundas
60 Main Street
Dundas, Ontario

Attention: Mayor John Addison and Town Council

Dear Mayor Addison:

We are writing in regard to the possible eradication of a marsh that exists on Region-owned land situated off of King St. East near Olympic Drive in Dundas and now bordered by the recently created baseball playing field (Volunteer Field).

As far as we know this marsh was in existence at the time Dundas was originally settled and has both historical and environmental significance. It is more than likely that it was once part of the Cootes Paradise marsh. However, due to development, it has been cut off from Cootes Paradise and barely survives as an unique eco-system in its own right. At present, fill is being ploughed into the edge of the marsh. There is a real threat that the marsh will be buried if this activity does not cease. We can see no reason why this fill can not be dumped elsewhere in a less environmentally sensitive and historically significant area. As well, this is not clean fill; it contains construction rubble, tires, carpeting, mattresses and pipes.

Besides the threat of being buried the marsh has become cluttered with debris due to past, and apparently ongoing, illegal dumping. Tires, bits of rusting metal, pipes and even such items as sinks, stoves and asbestos sheets have been observed within the marsh.

Our concern over the future survival of this marsh led us to contact Christine Bishop of the Hamilton Naturalists' Club who recently completed a biological survey of the marsh. The results of this survey, and her recommendations, are enclosed. We would like to add to the Naturalists' Club's survey a list of species of animals and plants that we have observed in the marsh over the last five years:

Birds: bank swallows, goldfinches, robins, mourning doves, flickers, kestrels, kingfishers, sandpipers, great blue herons, green herons, mallard ducks, blue-wing teal ducks, muscovy ducks

Mammals: red foxes (2), squirrels, deer, rabbits, marmots (woodchucks)

Reptiles: garter snakes

Other: land snails (in abundance)

Plants: swamp milkweed, spotted Joe-Pye weed, nodding bur marigold, arrowhead, willow (including pussy willow) and alder trees

As you can see from both these surveys this area is very important given the amount and diversity of life it supports. It has served, up to this time, a quiet corner which provides native species of animals with a secluded nurturing environment. As such, it provides a second, although smaller, sanctuary in conjunction with Cootes Paradise. Given that Cootes Paradise has deteriorated from its original state as a marsh in the true meaning of the word, it provides a more complete and natural habitat for these animals.

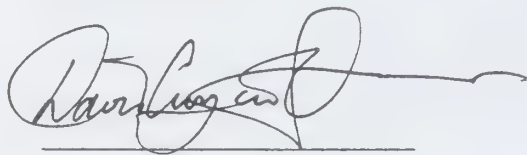
Also attached is a letter from Christine Bishop outlining her argument for the preservation and enhancement of this marsh. We fully agree with Ms. Bishop's position. It would be a tragedy, at a time when wetlands and green spaces are quickly disappearing, when animals are suffering from a lack of natural habitat, if this marsh is buried under a mass of tires and rubble. The quality of life for the present and future citizens of Dundas would also suffer, we feel, if this marsh is destroyed.

In regard to the preservation of the marsh we suggest that your committee look to the Province's wetland classification project. Section 3 of the Provincial Planning Act is the authority under which the Province's wetland policy statement has been issued. Under the Act, Municipalities must have regard to Provincial policy statements and, in the case of the wetland policy statement, this ensures that wetland conservation becomes part of the planning process of municipalities. Under this policy statement Class IV-VII wetlands are those considered to be of local significance. The best use of the wetlands is an issue to be decided by municipal council as part of local planning process.

The marsh with which we are concerned most definitely qualifies within the Class IV - VII wetland category and is of local interest. It is possible that a higher designation might be possible given its historic connection and close proximity to Cootes Paradise. This marsh plays an important role in our local ecology and, if properly handled by the Town, could enhance the lives of Dundas citizens and form a part of the Town's planning for tourist promotion. We would like to have the Town's Official Plan changed so as to block further development of the area and preserve this marsh for future generations. Tourist dollars and recreational benefits can significantly challenge the rationales of the most ardent property development supporter. The Town has only limited resources for expansion but has unlimited tourist potential if carefully planned. We strongly support the recommendations of Christine Bishop for this marsh area. We trust you will take the necessary steps without delay.

Please let us know the date upon which the Planning and Development Committee will consider and discuss our letter and Christine Bishop's enclosed letter and survey. Thank you.

Yours Truly,



David Crozier-Organ



Liz Crozier-Organ

encl. Christine Bishop's "Survey and Recommendations".

photos of marsh with notes on back

RECEIVED JUL 0 5 1998	
REFERRED TO:	MAYOR & COUNCIL
CLERK'S DEPT.	
TREASURY DEPT.	
RECREATION DEPT.	
FIRE DEPT.	
ENG. DEPT.	
WORKS DEPT.	
BLDG. DEPT.	
PLANNING	



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

June 10 1990

Re: Region-owned lands near the Olympic Drive waste transfer site

The following is list of breeding birds, amphibians and reptiles mammals and botanical species found on June 9 1990 in the wetlands located at the above mentioned site:

Breeding Birds

Number

Sora	1
Willow Flycatcher	3
Swamp Sparrow	1
Common Yellowthroat	1
Yellow Warbler	4
Red-winged Blackbird	6
Black-billed Cuckoo	1
Northern Oriole	1
Warbling Vireo	2
Song Sparrow	3
Eastern Kingbird	3
Indigo Bunting	1
Killdeer	3
Canada Goose	-several families

Reptiles

Painted Turtle	6
Snapping Turtle	1 nesting

Amphibians

Green Frog	2
Leopard Frog	2

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

Mammals

Raccoon	1
Muskrat	1

Aquatic Plants

Scirpus sp. (Rush sp.)	community
Juncus sp. (Sedge sp.)	community
Typha latifolia	(Cattail sp.)
Typha angustifolia	(Cattail sp.)

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Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

This wetland site could be a valuable asset to the Dundas community. In its present state, the pond is being impacted by garbage such as tires and concrete blocks which litter its shoreline, and fill from construction activities. Despite these impacts, it remains a very productive wetland as evidenced by the above list of biotic contents noted at the site in just one visit. This does not include any migratory bird activity which is likely to occur there in the spring and fall. These types of small wetlands are an island of green and an attractive place for migrant birds among our many urban areas in the Golden Horseshoe. The presence of emergent plants, i.e. sedge and rush communities, cattail sp., is very special because this type of vegetation is lacking in most of the shoreline wetlands of Lake Ontario and Hamilton Harbour due to the destructive activities of carp, and sediment erosion. In fact, these types of plants will be welcome and encouraged in any future wetland rehabilitation efforts in Cootes Paradise.

This wetland must not only be preserved, but has great potential as an educational tool for the public and students in elementary and high school. It is easily accessible, and contains a significant biological community within minutes of Dundas homes. I believe it is an ideal site for the city or region to provide a couple of nature interpretation signs, to enhance the shoreline (!), and perhaps, place a small viewing platform near the baseball field. Our club would be very interested in participating in a co-operative effort with the region or city in this regard. I believe that the site can and will attract people to it but if it is ignored, and eroded inch by inch by fill it will be a sad loss to Dundas. Few towns still possess these types of wetlands so close to their community.

Yours sincerely

Christine Bishop
Conservation Committee

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.

MEMORANDUM

PLANNING & DEVELOPMENT DEPARTMENT
STRATEGIC PLANNING.

4.26)

Date: December 4, 1990

To: Ken Pidsadny

From: Mark Hornell

Ext. 2195

Re: Letter from Dr. Paul Rapoport on aircraft noise

I have attached a copy of a letter concerned with aircraft noise and airport operations in general. Although Dr. Rapoport asked that his letter be distributed to the Task Force on Sustainable Development, Councillor Ross considers this matter to fall more within the mandate of the Chairman's Advisory Committee on Environmental Issues as well as the Special Airport Committee.

Could you please ensure that the letter is forwarded to the members of the Advisory Committee with their next agenda.

Thank you

MEH

MEH

COPY

7 Cradock Court
Ancaster Ontario Canada
L9G 3Z5

November 13 1990

draft
ry

Mr. R. Whynott
Chairman
Regional Municipality of Hamilton-Wentworth
Box 910
Hamilton Ontario L8N 3V9

FOR THE ATTENTION OF THE REGIONAL CHAIRMAN AND ALL REGIONAL COUNCILLORS

Dear Mr. Whynott,

I would like to comment on a specific report presented to the Region and then make a few general remarks on the issues involved. Finally, I will make some suggestions which I trust you will act on.

In the spring of 1990, the Special Airport Committee asked the City of Hamilton Noise Control Officer to study and report on noise from the Mount Hope Airport. My initial comments concern the report, issued June 13 1990.

Before I turn to the report itself, I should inform you that the Officer in question visited my house (unannounced) on the evening of May 29 1990, with the ostensible purpose of measuring aircraft noise. He tried to demonstrate his monitoring equipment but unfortunately could not explain it adequately. The following additional points are significant with respect to his visit:

- He admitted he could not determine whether his equipment was properly calibrated.
- He promised to stay until after an expected noisy flight at around 22:20 but left at approximately 21:45.
- He offered to come back "and stay for two weeks if necessary" to obtain sufficient noise readings. He did not return my subsequent phone calls and did not come back.
- On the night of his visit, he revealed that his report on noise had already been written.
- He explained that he had spent most of his monitoring time at the McInnes residence in Ancaster. He then offered the opinion that the McInneses could not distinguish the noise of an airplane from that of a truck.

I would further suggest that this Officer, as an employee of the City and the Region, was in conflict of interest purporting to measure noise caused by policies of the City and Region. Let me now turn to his report. To spare you a long discussion, I will mention only its highlights and representative problems.

"Background"

The writer implies that complaints about noise over the years are included in

Schedule A. This schedule represents but a small fraction of the complaints. The noise complaint telephone line was instituted at the height of the noise problem in 1988. The Airport Committee waited until most people stopped calling the line before telling the Officer to do his readings at locations indicated on the line. **A large number of complaints registered in 1988 and much of 1989, for example, have no impact on this report.**

The assumption is widely made, by the Airport Committee and the Airport Manager, for example, that the reduced number of complaints indicates that the noise problem is no more. Mr. Chairman, this fallacy is merely wishful thinking. When people are frustrated by the lack of response or by the complications of registering a telephone complaint in the first place, what do they do? They stop phoning. That is basic psychology. I am sorry if Regional officials do not understand it. **Even supposing that noise is less now than in 1988, what evidence has the Region actively solicited to prove that it is negligible?**

"Noise Abatement"

The significant part of the so-called noise abatement procedures fits on about half a page. **The Airport Manager and others are convinced that they are functioning well and have solved the current noise problem. Mr. Chairman, that is a delusion.** I am enclosing the list of noisy flights for the month of October 1990 in my area, which is not on any flight path and is 8 km to the north of the airport. I have records going back to Dec. 13 1987 which I can readily provide. Schedule A of the report under discussion is also an excellent indication that noise is still a major problem. The writer of the report has ignored the variety, verifiability, and vehemence of those detailed complaints.

Wherever I go in Ancaster, people ask me "When are they going to do something about those noisy planes?" Does this indicate there is no problem?

The noise itself depends on many things, as you know. It is foolish to think that it can be reduced by asking pilots to please fly to 3000' ASL, when type and condition of aircraft, wind, time of day, speed, unhelpful air traffic controllers, and other factors are involved — even presuming that the pilots do fly to 3000'. Incidentally, more than one person at the airport thought that 3000' meant *above ground*. So much for taking noise abatement seriously. And what about training and other special flights that take place at low levels over built-up residential areas? They are unnecessary, a needless disruption, and a potential danger.

Concerning the regular noise abatement procedures, it is widely recognized, even in this report, that they are often not followed. This is a serious matter, I think you will agree, but it is even more serious that Regional officials believe that the practically nonexistent noise abatement specifications (with violations largely unmonitored, unreported, and unpenalized) are doing the job. More on this important topic shortly.

"Procedures"

The report fails to offer a comparison of the A, B, and C scales for measuring sound levels. It fails to mention that the scale chosen suppresses low frequencies, which are the main component of aircraft noise at the distances under consideration. **The report offers no data and no evidence for its conclusions:** the tables included are all from the date of the report and are unexplained. The little technical discussion in the report is incomplete, disorganized, and garbled.

Such a report would probably fail in a Grade 9 science class. **It is elementary that explanations be clear and documentation be offered in support of conclusions. There is neither here.**

"Meteorological conditions", "Noise monitoring"

"Visual monitoring of aircraft could be done at the various beacons . . . throughout certain areas . . . monitoring stations were established". This vagueness suggests that the writer does not know where he measured, does not want to tell us where he measured, or is incapable of telling us where he measured.

There is no method given to arrive at the figures on page 4 of the report. The locations listed are a grab-bag with no indication of dates and times, length of stay, number and nature of flights, etc. Moreover, does the writer really think that the end of runway 30R is at Book Road and Fiddlers' Green? **The entry of "Craddock Court [misspelled] and Wade Road" is, as far as I know, fictional.** The Officer spent 90 minutes here and measured the noise of no airplanes.

"Flights", scheduled and other

On page 6 we are told that "all aircraft followed proper flight instructions". On page 7 we are told that on occasions, aircraft turned early, violating established procedures. **A report failing to recognize such basic contradictions is not worth much, is it?**

"Public concerns"

"It was mentioned by all parties . . . that without the presence of Nationair and Purolator the noise has been tolerable." That is demonstrably false. I personally said no such thing, and I can name others who didn't either. Why is this statement in the report?

The writer's treatment of public concerns, like the rest of his report, is a façade. Much of this section is given over to claiming that residents of this area do not understand aircraft manoeuvres. Needless to say, there is no evidence offered for this. Even more importantly, **the writer's treatment here of the whole noise problem is to blame the victims and accuse them of insincerity and incompetence.** Mr. Chairman, is this a proper response?

Other

I will spare you a discussion of the style of this report. Here is a typical sentence: "However, the sound could be heard for a period longer than 30 seconds the noise value would have been not greater than the background level." In my line of work, Mr. Chairman, we do not accept such gibberish.

My conclusion, suggested and documented with representative references as above, is that **this report is incomplete, inaccurate, inadequate, illiterate, insincere, and therefore inconsequential** for its intended purpose. It is a whitewash, and not even a very good one. That it was presented to a Committee of the Region, paid for with tax dollars, is a disgrace.

I would like now to address the broader issues. A number of Regional officials have professed interest in lessening the noise impact on Ancaster and other

communities, but nothing has been done to further this goal. **We are dealing with a problem which will not go away by having most of those who are supposedly responsible misconstrue it, ignore it, or bury it.** If the noise is less now, it is because of the accident of having some carriers leave the airport. It is not because anyone has actively done anything to improve the situation. This means, of course, that if the airport gets more traffic, the situation will get worse. The Region seems to have the attitude of "build now, plan later". Is that responsible, Mr. Chairman? Some, including the Airport Manager, want to change the noise abatement procedures now, in anticipation of later traffic. Is that not the start of a better idea?

The current noise abatement procedures specify that no planes fly out or come in over Hamilton at night. But it is fine for them to use Ancaster. **Are the people in Ancaster second-class, Mr. Chairman?** A company which recently began to fly at the Mount Hope Airport was reported as choosing this location in order to avoid the noise abatement procedures in Toronto. **Are the people of this entire large area second-class to those in Toronto, Mr. Chairman?** A newspaper report of Oct. 23 1990 stated that hundreds of people are awakened by a train whistle and implied that something should be done. **Do trains have priority over airplanes for sensible controls on noise, Mr. Chairman?** What about the hundreds of people in my area who signed a petition in 1988 against airplane noise?

It is convenient, of course, for politicians to do nothing and pretend that there is no opposition to their policies (or lack of them). It makes more sense to me that people in charge, whether they are politicians or not, do what is right, regardless of whether they recognize that many people object. There was one person objecting about contaminated soil in Scarborough; now the government has had to remove acres of it. There were only a few objecting to Uniroyal in Elmira; then the water became thoroughly contaminated. There were only a few who worried about the tire piles in Hagersville. Need I go on? How many people oppose airplane noise is not the main issue, even though some of your colleagues think it is. **The issue is whether noise is a problem and whether it can be alleviated. The answer to both is yes.** Are you aware that three legal opinions have suggested that the Region is violating its lease with Transport Canada by operating the airport as a public nuisance? The Regional Councillors should show some leadership and take care of this matter before it takes care of them.

In view of the above, I recommend the following.

1. That a proper airplane noise study be conducted, perhaps by LEQ Measurement of Brampton, who conducted a similar study years ago; but certainly by no one who is connected to the Region or who is incompetent.
2. That the Region ban regular night flights from the airport. These flights annoy and awaken people, weakening their health and lessening their productivity. The couriers and cargo carriers who claim they must have night flights here don't have them elsewhere: why should this area be the victim of their commercial desires? They operated well enough before they came here; they can operate well enough with flights not at times when most people try to sleep. There are plenty of incentives they can be offered other than the ability to create whatever noise pollution they want.

- 5
3. That the Region get serious with Transport Canada about having planes taking off to the west turn south before proceeding east, not north over Ancaster, Dundas, and Glanbrook. (Similarly, but the reverse path, for landing.) This is the one simple solution to the noise problem which nearly everyone agrees would be helpful. Some officials have claimed that there is too much air traffic to the south of the airport. Have you ever noticed much at night, Mr. Chairman? Has anyone?
 4. That there be noise restrictions on all runways and differential landing fees based on noise created. Let's get the old, noisy, dangerous planes out of here.
 5. That runway use be rotated. Let's be fair and give Hamilton its share of the nighttime noise, since it gets most of the benefits from this airport while palming off the problems to the suburbs.
 6. That the airport not be expanded until the current noise pollution issue is resolved.

I should point out that the Ancaster Airport Committee, of which I am a member, is not against the airport. It is against all the things I have written about, against the report of June 13 1990 and the way its "study" was conducted, against Mayors who pretend to be concerned, against Regional Councillors who call us liars, but most of all against the attitude that there is no noise problem or that it does not matter, and against the lack of interest in the matter shown by the Region. This area is supposed to expand its population soon; the airport is supposed to expand its services. Is it not better to do something now, than to wait until it is too late to do it easily? The adverse publicity to the airport has already been considerable, and no one needs a lawsuit over it, especially when the solutions appear to be so simple.

As I told the Airport Manager, I am personally available to discuss these matters at nearly any time and would be happy to join him or others in solving this problem. But after three years of official inaction, we are tired of waiting. Mr. Chairman, I trust you can understand why.



Dr. Paul Rapoport

encl.

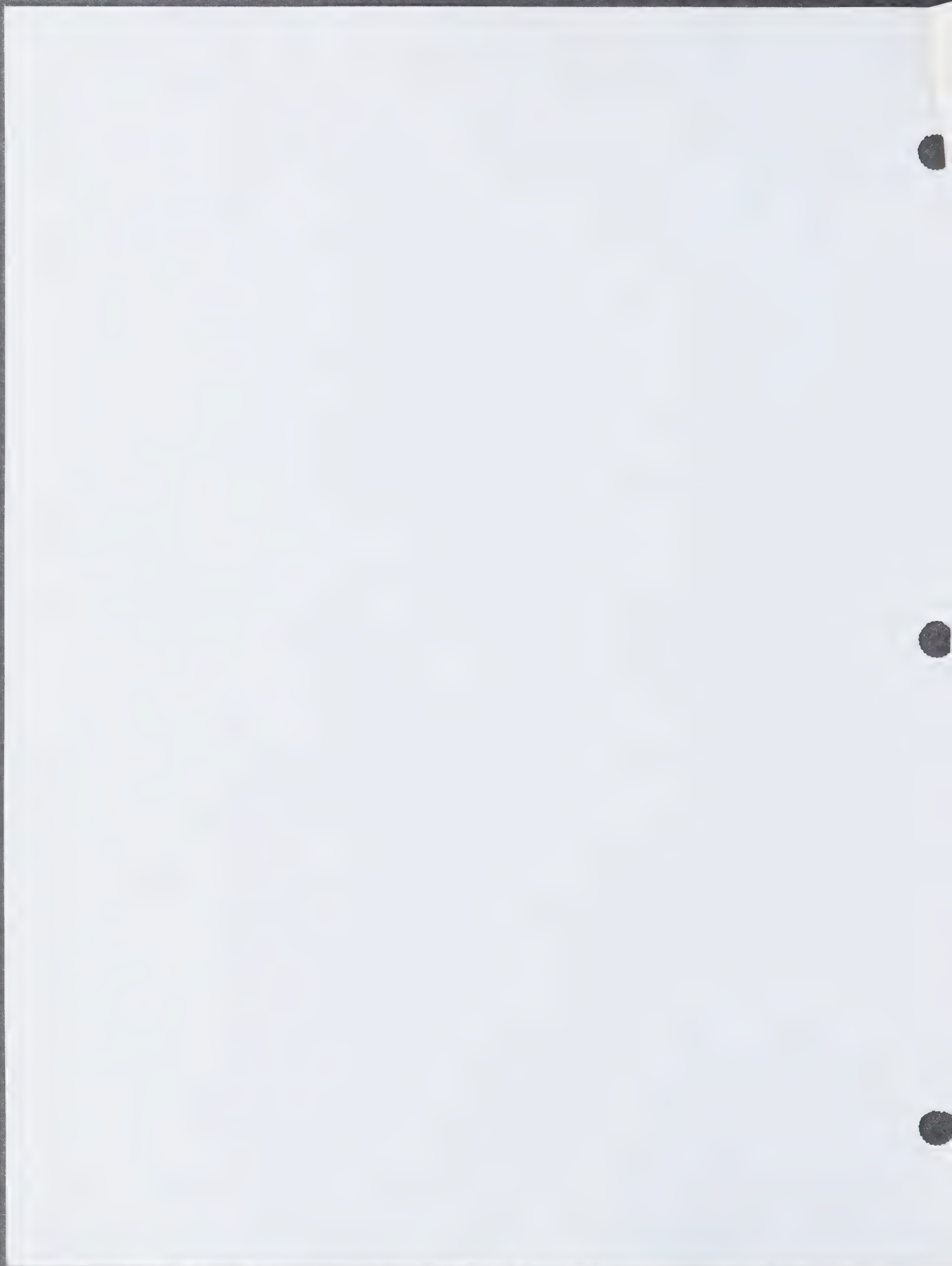
6

The following is a list of disturbing flights over or near 7 Cradock Court, Ancaster for the month of October 1990 only. Note the following:

1. All disturbances last from 30 seconds to three minutes (the latter for jets), often obscuring conversation, and always interrupting activities.
2. Omitted are probably many flights which took place when there was no one available to write down their times. The absence of a notation for any period does not therefore indicate that flights were not a problem.
3. All times are approximate to the nearest 5 minutes.
4. **These disturbances have seriously undermined family well-being, have prevented residents from sleeping, have worsened their health, have made them less productive at their employment and school, and have interfered with their rights to own and enjoy real property.**

1990

Oct 1	0715, 0955(2), 1040, 1705, 1755, 1800, 1805, 1825, 1835, 1840, 1850, 2225
Oct 2	0025, 5 between 0700 and 0800, 1020, 1040, 1330, 1335, 1740
Oct 3	0845, 1540
Oct 4	0010, 0305, 2225, 2230
Oct 5	0705(2), 0710(2), 0755, 1040(2)
Oct 7	2025, 2200
Oct 9	0735, 0745, 2220
Oct 10	0055, 0705, 2115 in extreme fog, 2220 in extreme fog
Oct 11	0715(2), 0830, 1800, 1820, 2230
Oct 12	0005, 1225, 2245, 2250
Oct 13	1735
Oct 14	0930, 0940, 1005, 1010(2), 1020(2), 1030, 1035, constant circling thereafter, 1200, 1205, 1210, 1220(2)
Oct 15	0900(2), 1715, 2240
Oct 16	0700(2), 0725, 1850
Oct 17	0720, 1050, 2250
Oct 18	0025, 0625, 0740, 2030
Oct 19	0715, 0720, 0725, 0730(2), 0740, 1035, 1330
Oct 20	0020
Oct 21	0100, 1835, 2055
Oct 23	0045
Oct 24	0705, 0710, 0720
Oct 25	0705(2), 0720, 0725(2), 1935, 2210
Oct 26	0655, 0700, 1110, 1115, 1135, 1150, 2010, 2015
Oct 28	0715
Oct 29	0710, 0720, 2045
Oct 30	0020, 0710, 0720, 0725, 0730, 0745, 1410



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**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

GOVERNMENT DOCUMENTS

A G E N D A

DATE: Thursday, February 14, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - January 10, 1991

2. DELEGATIONS

2.1 Canadian Manufacturing of Polystyrene Cups and Recycling Aspects

Mr. Scott Dorlandi (Fibra Can) will make a presentation.

2.2 Hospital Incinerators

Mr. John Vogt (Ministry of the Environment) to address committee.

**2.3 Concern of the Construction of a Waste Incinerator in Haldimand-Norfolk:
Accepting garbage from the Greater Toronto Area**

Maureen Martin - H.O.P.E. will address the committee.

Feb 14/91

3. BUSINESS ITEM

Regional Environmental Office (HEA-90-081)

(Note: Referral from the Engineering Services Committee meeting of
January 28, 1991)

- a) That the Committee endorse in principle and refer to Regional Council for approval, the Terms of Reference outlined in the attached report for a Regional Environmental Office;
- b) That upon approval in principle by Regional Council, an implementation plan, over the next three years, for a Regional Environmental Office be formulated by the Chief Administrative Officer and brought to Regional Council;
- c) That the implementation plan include provincial funding as much as possible and desirable.

3. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon
October 12, 1990	Proposed Composter To Be Built In The Town Of Dundas	Tabled until delegation wishes to address issue

**Chairman's Advisory Committee
on Environmental Issues**

Agenda

February 14, 1991

January 10, 1991

State of the Environment
Report - 1990

Referred to the
Sub-Committees of
CACEI

4. ADJOURNMENT

16.)

**MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m. on Thursday, January 10, 1991 in the Committee Room, 15th Floor, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillors B. Hinkley, G. Copps,
B. Vanderbrug, G. Birchall, Wm. Pedder, R. Baetz,
K. Murphy, B. McHattie,

Absent with Regrets: Councillor H. Merling
P. Muldoon, B. Thompson, C. Katz

Also Present: J. Halliday, N. Ragetlie, W. M. Carson, V. Terluk, Dr. Gibson,
F. Westaway, B. MacSween, K. Pidsadny

1. GENERAL

- a) **Declaration of Interest re: Municipal Conflict of Interest Act (None)**
- b) **Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - December 13, 1990
(Vanderbrug/McHattie) be received and adopted as amended. CARRIED**

NEW BUSINESS #3

2.4 State of Environment 1990: Summary Report

N. Ragetlie presented the draft, State of the Environment 1990 - Summary Report, to members. The purpose of the report is to increase awareness about the state of the Region's environment; the effects of human activities on it, and the implications of changes on the environment, to provide a resource for continued public education and dialogue and, to help identify areas in which we have inadequate or limited knowledge.

Note: At the meeting of Dec. 13, 1990, the State of the Environment 1990, was received and requested that a presentation be made at the Jan. 10, 1991 meeting.

Staff were requested to forward copies of the report to each subcommittee of the Chairman's Advisory Committee on Environmental Issues for their perusal.

Members requested that the report should address consequence of action/no action, and transportation issues. Mr. Vanderbrug requested a presentation to the Hamilton Conservation Authority.

2. DELEGATION

Hamilton Air Quality Report (M.O.E.) 1988

Mr. F. Dobroff and Mr. D. Corr, from the Ministry of the Environment, addressed committee members. At the December 13, 1990 meeting, the Hamilton Air Quality Report 1988 was received (N.B. #4). A discussion took place on the content of the report.

Staff were requested to investigate the feasibility of a promotional campaign addressing the issue of "Car Tune-up Specials" to lower the amount of exhaust emissions during United Nations Earth Day, April 22, 1991.

Item 4. b) was brought forward.

4. b) Correspondence, November 13, 1990, from Dr. Paul Rapoport, re: Aircraft noise

- b) Dr. Paul Rapoport, and Mr. Kay, citizens, addressed committee members. Mr. B. MacSween and Mr. F. Westaway, Airport personnel, addressed committee members.

After a lengthy discussion, it was agreed that the individuals would report back to committee on the recommendations contained in the correspondence of Dr. P. Rapoport.

(Vanderbrug/Murphy)

- a) That Transport Canada be requested to consider the installation of noise monitoring equipment at strategic locations at and near the vicinity of Hamilton Airport;
- b) That this be referred to the Engineering Services Committee and Special Airport Committee for consideration. **CARRIED**

Note: Committee agreed to invite Dr. P. Rapoport back to a future committee meeting.

3. BUSINESS ITEMS

Reducing Excess Packaging

(Baetz/Hinkley)

- a) That fast food restaurants provide reusable dishes and cutlery for sit-down customers;
- b) That the province impose a special tax on disposable take-out food containers, with revenues going towards waste-reduction efforts;
- c) That supermarkets reduce their excess packaging.
- d) That a letter be sent to the Provincial Government endorsing the goals of Environmental Action Ontario aimed at reducing excess packaging.

CARRIED

NEW BUSINESS #1

Environmental Bill of Rights: Invitation to Comment, (New Business #1 received from Councillor Hinkley)

(Hinkley/Copps)

- a) That the Minister of the Environment, the Honourable Ruth Grier, be advised that committee encourages the province to proceed with Government legislation on Environmental Bill of Rights;
- b) That committee is interested in commenting on any draft Bill that is put forth.

CARRIED

4. FOR THE INFORMATION OF THE COMMITTEE

(Vanderbrug/Birchall)

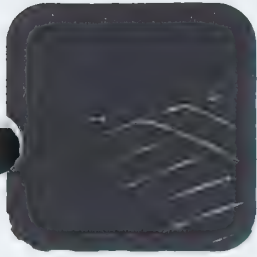
- a) Correspondence from Mrs. Liz Crozier-Organ, Dundas, re: Eradication of
Marsh - King Street and Olympic Drive, Dundas **CARRIED**

5. ADJOURNMENT

On motion (Hinkley/Copps) the meeting adjourned at 11:50 a.m. **CARRIED**

Chairman

Secretary



THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Planning and Development Department
119 King Street West, 14th floor
Hamilton, Ontario
Fax (416) 546-4364

RECE

2.3

November 19, 1990

Refer to File No. 764.91
Attention of
Your file No.

Chairman Reg Whynott
Region of Hamilton-Wentworth
15th Floor
Ellen Fairclough Building

Dear Mr. Whynott:

I have enclosed a package of information that was dropped off at the Glanbrook Sustainable Development workshop. Ms. Marina Martin thought that you would have been at the workshop that is why she decided to get this information to you in this way. Ms. Martin is a member of an organization called H.O.P.E. which is based in Haldimand-Norfolk. They are concerned about the construction of a waste incinerator in Haldimand-Norfolk that will be taking garbage from the G.T.A.

Yours truly,

Mark Hornell
Task Force Co-ordinator



THE REGIONAL MUNICIPALITY
OF HAMILTON - WENTWORTH

Office of the Chairman

November 22, 1990

Marina Martin, Vice Chairman
HOPE
Box 548
Cayuga, Ontario
NOA 1EO

Dear Ms. Martin:

Mark Hornell, our Task Force Coordinator for Sustainable Development, has passed on the package of information that you left with him at the Glanbrook Sustainable Development workshop for my perusal.

I have taken the liberty of forwarding your material to Councillor John Prentice, Chairman of the Sub-Committee on Environmental Issues for his committee's information and consideration.

Many thanks for sending this material to us - we are all concerned about the environment - and I am sure that Councillor Prentice's committee will review your organization's comments.

Yours very truly,

R.J. (Reg) Whynott
Regional Chairman

cc - ✓ Councillor John Prentice

Encl.

Reg Whynott



**Haldimand-Norfolk Organization
for a Pure Environment**

H.O.P.E.
P.O. Box 548
Cayuga, Ontario
NOA 1E0

*Note:
Brian McHattie
can tell you more
about this.*

Premier Bob Rae,
Queens Park, Toronto, Ont.

Nov. 1/90

Dear Mr. Rae,

HOPE is an organization of concerned VOLUNTEERS who seek to protect the environment through research, education, and cooperative action with community organizations and government bodies. Our paid-up MEMBERSHIP currently stands at 850. We are founding members of RAGE, RURAL ACTION ON GARBAGE AND THE ENVIRONMENT, which now has ten member groups. We support responsible development in environmentally sound locations, advocate preservation rather than merely conservation, and have been strong advocates of recycling since the early 80's. In the past, we have successfully challenged the Provincial government in its bid to locate the toxic waste facility for Ontario in South Cayuga. We consult with our Regional government on local waste management, rural policy, shoreline management, and natural areas protection issues. We have a long history of working closely with the Federation of Ontario Naturalists, Norfolk Field Naturalists, Hamilton Naturalists, Conservation Authorities, and, more recently, Coalition Advocating Responsible Development.

As promised in our letter of Sept. 12, this item of correspondence further details our concerns with both the ENVIROMAX PROPOSAL for NORTH CAYUGA and the TORONTO TRASH issue, the most urgent problems currently before us.

The previous Provincial government received letters of concern from our organization, but we have been alerted that not all of this information may have been passed on to you. Therefore we enclose copies of our letters of concern to local governments, to

Mr. Bradley (similar letters went to various ministries), and to the Economic Caucus of Ontario. As well, we have enclosed documentation on WETLAND, ANSI and ESA status of the Enviromax site.

THE ENVIROMAX PROPOSAL

The Enviromax proposal to the GTA's Solid Waste Interim Steering Committee, as well as the Enviromax project summary to local Councils, indicate that the following project is planned:

- INCINERATION of 4000 tpd MUNICIPAL WASTE from Toronto and S. Ontario (EFW)
- INCINERATION of WASTE OILS from across the Province (fuel injection and/or primary burner)
- INCINERATION of RUBBER TIRES from across the Province
- 165 acre LANDFILL, including a proposal to Toronto for INTERIM LANDFILL.
- LANDFILL of INCINERATOR ASH
- Some RECYCLING components including waste wood recycling (this includes use of waste wood as fuel = INCINERATION)

The project is advertised as the largest facility of its kind in the world.

OUR CONCERNS with the proposal include:

1. SAFETY

In-depth research has shown that "state of the art" incineration projects have never yet been found safe for the local or global environments. Problems include greenhouse gases, acid mists, heavy metal contamination, dioxin and furan contamination. The better the emission controls, the more toxic the ash, a major disposal problem.

"Safe" emission standards apply to only a few chemicals and are based on best available technology capabilities rather than on human health studies.

The ability of the MOE to police sites and enforce standards is questionable ie Hagersville Tire Fire, Elmira.

2. INCINERATION IS INFLEXIBLE

It requires a commitment of 20 years, during which time it must be fed.

3. INCINERATION IS ANTI-RECYCLING

80% of garbage is both burnable and recyclable. More energy can be saved by recycling the resources in garbage than by burning them to make energy from waste. Incineration is a disincentive and an EFW is an excuse.

4. INCINERATORS ARE INCREDIBLY EXPENSIVE to build and maintain. They invariably have breakdowns, and the cost of repairs make fines an acceptable operating cost.

Note: Our sources of information include Great Lakes United, the International Joint Commission, Pollution Probe, Citizens for a Safe Environment, Dr Paul Connett (associate prof. of Chemistry and advisor on waste management to the US Congress), OPIRG, Greenpeace, Dr. Thomas Webster, environmental scientist for Centre for the Biology of Natural Systems, and the American Public Health Association.

5. TRAFFIC CONCERNS

The projected traffic alone will result in inevitable disruption of our rural lifestyles and our natural areas. It is well known that truck traffic constitutes a major source of air pollution. Safety is another concern in an area of school buses and slow-moving farm vehicles.

6. LANDFILL IS A DINOSAUR SOLUTION

Ground water contamination, methane gas release, effects of pest control methods on adjacent natural areas are only a few of the hazards. All landfills eventually leak.

7. INCINERATION OF WASTE OILS AND RUBBER TIRES ARE UNTHINKABLE in this day of recycling and reuse. Both present storage and monitoring problems.

8. MEGAPROJECTS VICTIMIZE A SINGLE COMMUNITY

9. INCOMPATIBILITY WITH EXISTING ECONOMY

This community has an economy based on agriculture and the compatible industries of tourism and seat of local government, all of which would be disrupted.

10. THE PROJECT IS INCOMPATIBLE WITH THE OFFICIAL PLANS

for the Region of Haldimand-Norfolk and the District of Town of Haldimand.

THE SITE

The site is part of the NORTH CAYUGA SLOUGH FOREST. The MINISTRY OF NATURAL RESOURCES also recognizes this forest as the YOUNG TRACT. This forest has been extensively studied by the MNR, the ONTARIO HERITAGE LEAGUE, the NORFOLK FIELD NATURALISTS, the HAMILTON NATURALISTS CLUB. It is used by the CANADIAN WILDLIFE SERVICE as a location for "listening stations" in the wildlife monitoring programs (Contact Rick Ludkin, York Ont.). It is used by local BOY SCOUTS OF CANADA for nature interpretation and camping. The GRAND VALLEY TRAIL traverses a portion of the forest adjacent to the Enviromax site. Biologists working for MOHAWK COLLEGE in their natural history programs use this forest, and specifically the Enviromax property, for field trips (Contact Bruce Duncan Hamilton-Wentworth Conservation Authority - "This is some of the best warbler habitat in all of S. Ontario". Quoted to myself 3 years ago). The forest is clearly representative of Carolinian forest, and was classified by the Ontario Heritage League as an ALTERNATE CAROLINIAN CANADA SITE. Recently the OHL did away with all Alternate classifications, but they assure us that this by no means decreases the value of the forest.

THE NORTH CAYUGA SLOUGH FOREST contains FIVE Class I to III WETLANDS. The MNR has indicated to us that the REGION of Haldimand-Norfolk, a region 140 km in length and 40 km wide, contains only 25 Class I to III WETLANDS in total.

The NCS FOREST comprises of a total of 2000 acres, 400 of which are contained in the Enviromax property. As such, it is the

ONLY large continuous forest left in the District of HALDIMAND.

The NCS FOREST was studied by Ian MacDonald in 1981 for the MNR. The boundaries of the NCS FOREST documented in his study clearly include the ENTIRE Enviromax property. He recommended that the core of the forest be made a CANDIDATE NATURE RESERVE, and suggested that the rest of the forest and also surrounding farmlands be enhanced to maintain the diversity of the forest. This portion of the forest is now an ANSI, AREA OF NATURAL AND SCIENTIFIC INTEREST, and is adjacent to the Enviromax property.

In the NATURAL AREAS INVENTORY OF THE REGIONAL MUNICIPALITY OF HALDIMAND-NORFOLK, prepared by the Norfolk Field Naturalists in 1985-86, the Enviromax property is also within the boundaries described as the North Cayuga Slough Forest. In 1987, they recommended that the NCS FOREST be declared an ESA, ENVIRONMENTALLY SENSITIVE AREA, in the Official Plans for the Region and District. The NATURAL AREAS INVENTORY was described by J. Rylie, Regional Ecologist for the MNR, as being "one of the best inventories in North America".

The REGION currently has it on the work program to undertake a review of ENVIRONMENTALLY SENSITIVE AREAS. In the DISTRICT PLAN REVIEW presented to the public on Nov. 1 /90, the NCS FOREST is specifically pointed out as a significant area to be considered.

Based on documentation from the above agencies, the NCS FOREST contains 485 vascular plant species, seven of them rare. It contains 78 bird species, including 37 nesting species and 39 migratory species. The forest is a veritable "bird motel". The OHL lists a total of 13 Rare in Canada species within the forest.

The MNR documents that the forest is an important yarding area for deer and that it is a regionally significant area for duck hunting. A Great Blue Heron colony, containing about twenty nests, is located in a mature stand of Red Oak located in the centre of the forest.

In the LIFE SCIENCE FEATURES OF THE HALDIMAND CLAY PLAIN PHYSIOGRAPHIC REGION, the forest is described as the best slough basin/ridge landform in the region (this physiographic region stretching from London to Niagara Falls, and from Lake Ontario to Lake Erie). Ian Macdonald, MNR, states, "Display of the slough pond and basin land is matched nowhere else." He recommended that the management of the adjacent woodland and successional areas be ameliorated to be compatible with wildlife habitat to maintain the local water table regime and to act as a buffer to support diverse fauna. He felt also that agricultural land reclamation in the area might have to be modified to be compatible with preservation of this environment.

The NATURAL AREAS INVENTORY similarly states that the forest supports the highest diversity of breeding bird species of areas investigated on the Haldimand clay plain physiographic region. The total of 485 vascular plant species presents a close second to the Bachus Woods, ESA, and is a higher total than that found in any other ESAs currently listed in the OFFICIAL PLAN for the Region. To maintain this diversity, it recommends, "This area's significance is due, in part, to its large size. Further sections should not be cleared or drained. Some open fields should be left unplanted, as they support early successional plant communities

and large numbers of Blue-winged and Golden-winged Warblers." (Note that this refers to a hawthorne savannah located within the Enviromax property, which is also part of the Class II Wetland Complex.)

It becomes evident that all experts documented to date agree that the forest can only maintain its diversity sustainably if it is left intact and if adjacent areas are enhanced and protected. The current ECOSYSTEM APPROACH endorsed by naturalists, Conservation Authorities, and the MNR again supports the position that no portion of the forest can be cleared or drained without negative impact on the rest of the forest. Furthermore the inevitable presence of acid mists and mercury at incinerator sites, are well-documented to have an adverse effect on forests and wildlife.

The majority of owners of farms within the forest and within a 2 km radius of the forest receive tax rebates for either managed woodlots or conservation land. They know the significance of the forest and have spent time and money to enhance their lands by planting of trees and wildlife shrubs and digging wildlife and fish ponds, in true stewardship efforts. The Enviromax property itself was a managed forest between 1981 and 1989, (prior to purchase by Enviromax), according to the local taxation office. A portion of the western field was planted to pine during that time.

The Enviromax property is ENTIRELY within Area 5 of the Young Tract, a CLASS II WETLAND COMPLEX, a Provincially significant wetland. The ENTIRE property is within the bounds of the NCS FOREST as documented by Ian Macdonald (MNR), the Norfolk Field Naturalists (Natural Areas Inventory) and Proctor and Redfern (1987 Report to the Region in Fig.F-3, states "part of the NCS Forest, ESA - MNR").

The REGION of Haldimand-Norfolk investigated this very property for landfill as documented in the Proctor and Redfern report, "IDENTIFICATION OF PREFERRED LANDFILL SITES", which evaluated 33 sites. It rejected the site in the FIRST CUT on advice from the MNR that it was PART OF THE NCS FOREST.

Adjacent to the site is the closed EDWARDS LANDFILL SITE. The REGION, in consultation with Proctor and Redfern, evaluated this site also and rejected it as a suitable site. Documentation indicates that groundwater flows towards Cayuga, and that there is danger of leakage of three priority chemicals from the site. MOE documentation on the Edwards site shows an incredible history of non-compliance with MOE standards and orders. Our current DISTRICT PLAN REVIEW indicates that the MOE has requested that all closed sites be earmarked in the Revised District Plan with policies in place for development on lands within 500 m. of such sites (This includes the western half of the Enviromax site).

The site itself is part of a HEADWATER FOREST, and is the highest point of land between the GRAND River and the WELLAND River. Two creeks originating on the property flow to the Welland R. and two to the Grand River. As such, a portion of the property is under the jurisdiction of the NIAGARA PENINSULA CONSERVATION AUTHORITY and a portion is under the jurisdiction of the GRAND RIVER CONSERVATION AUTHORITY. Both registered strong opposition to our Region when the proponent applied to cut trees for the purpose of core bore testing (Note the executive directors of the GRCA were unanimously opposed).

The Enviromax property, according to the Proctor and Redfern report, is 2/3 forested, and according to the local taxation office, 189 acres of this received tax rebates as "managed woodlot". The proponent of Enviromax wishes to clear 165 acres of this forest for landfill. It must be remembered that our OFFICIAL PLAN, a legal document before the Ontario Municipal Board, PROTECTS OUR FORESTS, as does the REGIONAL TREE CUTTING BYLAW and the TREES ACT.

The property is AGRICULTURALLY ZONED. Although wellands and forests are not classed as prime agricultural lands, they are essential to agricultural ecosystems as clearly stated in our OFFICIAL PLAN for the Region (6.2.1. "Agricultural viability is improved by forest cover in that wind erosion of topsoil is reduced, shelter is provided, and groundwater quality and quantity is maintained. In addition, land managed for forestry purposes provides wood and wood products, proper habitat for wildlife,

protection against floods, recreation and protection of water supplies" and the POLICY is laid out, 6.2.3 "Apply in a consistent manner the provisions of the TREES ACT in order to retain existing woodlands").

Agriculture is essential to our local economy. According to our 1990 RURAL POLICIES STUDY, 30% of our residents are employed in agricultural jobs, as compared with 4% in the rest of Ontario.

The property is 3 km from the GRAND RIVER, a HERITAGE RIVER, and 2 km from the TOWN OF CAYUGA, which, according to our DISTRICT PLAN REVIEW, is expected to expand from 1300 to 2000 inhabitants in the next 10 years. Maps show that approved residentially zoned areas stretch from the current Town boundaries towards the Enviromax property.

The 1990 GRAND RIVER TOURISM STUDY, which includes the Dunnville locks project, indicates that there is a large commitment of Provincial dollars to tourism here, with a planned system of parks and trails and commercial tourist enterprises right in Cayuga. A GARBAGE MEGA-SITE and tourism are totally incompatible.

THE PROPONENT

The Proponent is NEIL SLACK of SLACK TRANSPORT. Other family businesses include SLACK LUMBER and CAYUGA SPEEDWAY and a number of residential/commercial development projects. He is a mechanic by trade and his SWISC application shows that he has absolutely no experience in any type of waste management or recycling. The MNR tells us that during his site selection, he did not consult with them.

The proponent broadly advertised his project as a "RECYCLING DEPOT", which resulted in a misperception by the general public which lasted some six months.

When the proponent applied to the REGION to cut trees for the stated purpose of EAA requirements, he did not tell Council that he was applying to Toronto for an INTERIM SITE, which only requires EPA evaluation. A copy of his SWISC document subsequently presented to local and Regional councillors, DELETED the paragraph pertaining to his application for interim garbage. Note that our TOWN OF HALDIMAND Council registered unanimous opposition to any tree-cutting, but our Mayor IGNORED HER COUNCIL and voted for cutting.

The Region originally gave permission to cut a very limited number of trees to allow for hydrogeological testing, provided a contract was signed binding the proponent to preserve Wetland values as per instructions of the MNR. Subsequently the proponent refused to sign the agreement, demanded a permit, and proceeded to cut trees. The Region repealed the bylaw allowing tree cutting; nonetheless the proponent continued to cut, during wet spring conditions (contrary to advice of Art Holder, MNR). To date he has cut access laneways to 60 core bores and three test pits, all without bylaw approval.

The proponent agreed publicly at Regional meetings to allow HOPE's hydrogeologist, Wilf Ruland of Waterloo, to observe hydrogeological testing, as a condition of permission to cut trees. Mr. Ruland was only allowed to see three core bores (which showed fractured clay to a depth of 40 feet). Subsequently he was kicked off the site, the reason being that Mr Slack had experienced some vandalism (not pursued by police). The rationale stated to the press and HOPE was that as Mr. Ruland and HOPE represented the public, and as someone out there from the public had done Mr. Slack wrong, Ruland was to be banned from the site. Fifty seven more cores were taken without his presence. A glowing summary of Enviromax findings on site was in direct contrast with the observations of our hydrogeologist.

We subsequently negotiated for our hydrogeologist to observe test pit excavation, but he was not allowed to back up findings with his own pictures, as per standard practice.

Enviromax has to date refused to provide us with a single technical document. There has been no public meeting conducted by the proponent since NOV /89, one year ago.

In light of the above information, all supported by documentation, we must ask whether the NDP government of Ontario could possibly envision major stewardship of our air and water in the hands of this proponent.

SUMMARY

HOPE has been acting as the coordinating body for response of naturalists and environmental groups across the Province, who are alarmed by the prospect of damage not just to Area 5 of the YOUNG TRACT, but to the entire NORTH CAYUGA SLOUGH FOREST ECOSYSTEM. we have letters of support from 33 concerned organizations, ten of them from naturalists groups in SW Ontario. We have 8500 names on petitions stating that this property should not be used for industry of any sort (note that Cayuga has only 1300 residents and the entire Town of Haldimand has only 18000 residents). The Federation of Ontario Naturalists is actively participating in local presentations regarding the Slough Forest, as are eight large local organizations, including local naturalists clubs, the Women's Institute, + United Church. We are working on articles requested by 3 major magazines - Anglers and Hunters, Seasons, and Earth Keeper.

The proponent has already done damage in the name of "site preparation", as has occurred in many other wetlands and forests across the Province. We urge the Provincial government, SWEAP, and SWISC to review the evidence and keep this proposal off the short list of preferred sites for Toronto, as this will inevitably encourage the proponent and lead to more site preparation damage.

The ENVIROMAX Proposal is an extraordinarily bold plan to place heavy, potentially hazardous industry in a unique environmental setting which is also a Provincially Significant Wetland Complex and a headwater forest. With the increasing pressures on our precious dwindling environmentally sensitive areas and our agricultural land base, good stewardship of our resources is a moral imperative. We hope that the Provincial government shares this view.

As the NDP prides itself in its environmental policies, we urge your government to uphold election promises and take a strong stand on defense of wetlands, ANSIs, ESAs, forests, and agricultural lands. We ask that the Ministry of Municipal Affairs and the OMB will uphold our Regional and District Plans as legal documents which set out how the residents of this area want local development to proceed in a responsible manner.

The Toronto Trash issue is a major Provincial problem which can and must be dealt with sensitively. Toronto refused to deal with it in the late sixties, and if it is given another opportunity to hide the trash, in the ground or in the air, the problem will rear its head again in a few years, after more of our resource lands are destroyed. We will deal with our specific suggestions concerning Toronto Trash in further correspondence.

The MNR under the Peterson government has failed to protect this and other Wetlands. Documentation on how the local MNR has failed on this specific site was provided to Lynn McLeod, and has been discussed with Art Holder at his meeting with HOPE, the Norfolk Field Naturalists, and Coalition Advocating Responsible Development on May 23. To date we have not received the promised clarifications on statements made by the local MNR which ignore Wetlands Guidelines, Slough Forest documents held by MNR, and specific advice from its own biologist that "This project cannot proceed without damage to Wetland values". As the proponent is challenging the MNR's Wetland Evaluation, it is paramount the MNR be on top of the issue and making clear statements. This subject also will be addressed under separate cover.

Thank you for your kind consideration. We are anticipating a response at your earliest convenience.

Yours very truly,

Marina Martin

Marina Martin, Vice-chair

HOPE

H.O.P.E. News

Action Alert

The HOPE membership meeting on October 23rd was well-attended and presented an opportunity to share information and receive input from our members. One of the main concerns expressed by our members is that they want us to be more explicit about which of our local and Regional Councillors are or aren't supporting the citizens of the Town of Haldimand on environmental issues such as the Enviromax proposal. We will need additional volunteers to monitor committee and Council meetings if we wish to do this well. For those who were unable to attend the last membership meeting, an update of our activities, as well as current issues, is available from the executive or at the Cayuga IGA.

Mr. Bullen of the Ministry of the Environment informs us that Enviromax has completed its studies. However, hydrogeologic technical reports have been denied us thus far, even core bore reports which would have had to be completed before the test pit evaluations started. We have to wonder why the proponents are remaining so quiet. This is the time to be vocal in opposition to the project, so that additional financial backing will not be attracted to it.

Mr. Bullen goes on to warn that the project will most likely proceed under the Consolidated Hearings Process. In this process, the Environmental Assessment Board and the Ontario Municipal Board meet jointly to hear the proponent and

the "Intervenors". Local zoning applications (note that the Enviromax property is agriculturally zoned) and Official Plan amendments are by-passed in this process. The logic is that the OMB is considered to be an "arm of the Minister", and is in any case the ultimate authority on zoning and amendments. Under the Consolidated Hearings Process, therefore, the Town/Region must seek official Intervenor Status in order to have their say. We need to keep the pressure on our local representatives to become outspoken on this issue, and to represent the public by becoming intervenors when the time is right.

We now have a list of new Provincial Ministers available to you, and we hope that as many of you as possible will write them: Hon. Bob Rae, Premier, Legislative Bld., Queens Park, Toronto M7A 1A1; Hon. Bud Wildman, Min. of Natural Resources & Energy, Whitney Block, Queen's Park, Toronto, M7A 1W3; Hon. Ruth Grier, Minister of the Environment, 135 St. Clair Ave. West, Toronto, M4V 1P5; Hon. Elmer Buchanan, Min. of Agriculture and Food, 801 Bay St., Toronto, M7A 1A3; Hon. Dave Cooke, Min. of Municipal Affairs, 777 Bay St., Toronto M5G 2E5. Make your letters simple and clear—no special writing talents are needed. If you send copies to HOPE, P.O. Box 548, Cayuga, we will see that they are seen by the Environmental As-

essment Board as well.

We need to tell the NDP government what we think of the Enviromax proposal and ask them to keep their promises on waste management, which are as follows. 1. No incineration of municipal waste in Ontario; 2. Every municipality must be responsible for its own garbage. 3. The siting and ownership of dumps should not be in the hands of private enterprise, where windfall profits and poor site selection practices are the norm.

To reinforce these principles, we have produced an additional 200 signs, "Say No to Incineration" and 200 signs with a new slogan, "Say No to Cash for Trash". Please contact HOPE for signs at 772-3032 evenings or pick one up at the Cayuga IGA.

HOPE seeks to protect the environment through research, public education and cooperative action with the community, its leaders, and other environmental organizations. Remember the HOPE dance, November 10th at the Kin Hall—the last dance proved that a community can rally for a common cause and have fun in the bargain.

—Marina Martin.

Election News

Haldimand Press
Aug 29

H.O.P.E. News

HOPE is a Regional organization which seeks to protect the environment through research, education, and cooperative action with community and government bodies. As such, it follows that we must look carefully at the environmental conscience of our Provincial candidates and their parties, and report as accurately as possible so that voters are informed as to what they might expect in the way of environmental policy.

We must note that we are not advocating any particular party or person. We are interviewing each candidate, as well as distributing an environmental questionnaire, and will report on our meetings chronologically. To date, we have interviewed Mr. Bob Nixon (Liberal), Mr. Brett Kelly (P.C.) and Mr. Chris Stanek (N.D.P.), all hopefuls for Brant-Haldimand.

Mr. Nixon agreed to meet with us on August 18th in Cayuga. He is the current minister of finance (responsible for our budget) and has been in office for 1/4 of a century. It became immediately obvious that he thinks of himself as a Provincial politician rather than as a regional representative to Provincial government, as a good many of his comments were preceded by, "We in Toronto feel that..."

On the subject of garbage disposal, which is of so much concern to local residents, Mr. Nixon is a strong proponent of the privatization of garbage disposal, feeling that the government should not be in this business, outside of the necessary legislation. He feels that current recycling initiatives are important, but that Toronto must have landfill and incineration facilities.

He is a strong supporter of incineration municipal waste, feeling that it is 99.9999% safe if done properly. He declined to view a tape of our presentation by Dr. Paul Connett, international expert on incineration and advisor on waste management to the US

Congress, citing Dr. Jones of U. of Toronto as his preferred expert. When asked about the subsidization of incineration which is included in his budget, he said that a large portion of that is earmarked for incineration of rubber tires. On the Hagersville tire fire, he remarked that he felt somewhat responsible for the occurrence, stating that the situation could have been avoided in advance, but that "It didn't seem possible to convince the public that this was necessary." The Liberal government had not yet at the time directed any of the tire tax collected thus far, into recycling.

When asked about the Enviro-max proposal for the largest incineration-landfill project in the world, proposed to be built by a private entrepreneur in Haldimand, and expected to service Toronto, he said that we would receive hearings under the Environmental Assessment Act, but he did not offer to go to bat for us, his constituents. Asked about the fairness of EAA decisions being interfered with by Cabinet, as occurred in Tiny Township, "Ultimately, these decisions are not in the hands of the experts, but in the hands of the people (referring to Cabinet)". Why, then do we bother with Environmental Assessment? This question remains unanswered. When asked about his infamous Project X, which proposes to alter the EA Act, he replied that criticisms laid by environmentalists across the Province are unfair, as his aim is merely to cut costs and to reduce the length of time that an assessment takes in half. This does not address the concern that, as intervenors are not funded until a project is designated for EA, citizens will not have time to prepare a proper case. On the subject of accepting US garbage, he said, "Well, we do ship garbage to the States", referring to Halton garbage.

On the subject of the Toronto

Metropolitan Act's ability to expropriate land across the Province for the purpose of landfill for Toronto, Mr. Nixon commented that he was not aware of this but that certainly the Province has the right of eminent domain.

The Liberal government has not yet enacted a piece of environmental legislation promised since 1985. It is still dallying over the proposed Wetlands Policy Statement, a watered down version of what could have been Provincial legislation.

"Our second meeting was on August 22nd, with Brett Kelly, a Dunnville born and raised biologist who has clear statements about the environment, which he plans to uphold as a full-time Provincial politician. He states that the concerns of his constituents, as well as his own environmental conscience and expertise will dictate his actions, rather than party politics. His party, as well, has taken a stand on environmental issues, and basically he presented party stands.

Although it is easier to state policy when your party has not been under criticism, his intentions are clear; he feels that strong Provincial legislation (not just policy statements, which are not enforceable in law) is due for Wetlands of all classes, forests, and farmland. He feels that a candidate should address and protect the concerns of his own constituents.

On the subject of garbage, he feels that if each Region is held responsible for its own waste management, the entire Province will be cleaner. He is opposed to the prospect of Toronto shipping its garbage to another Region, as this will only delay hard decisions such as legislative control of excess packaging and budgetary promotion of recycling rather than incineration.

As a biologist with expertise in pesticides and chemicals, he is opposed to incineration of municipal garbage and rubber tires. He feels that the International Joint Commission's goal of 0-discharge of persistent toxic chemicals, although possibly not attainable under the present system by the year 2000, is an admirable one and one which the Provincial government must strive towards in all its legislations. (The IJC is a Canada-US agreement).

(over) →

On the subject of Project X and the Environmental Assessment Act, he states that if you want to streamline it, you must give it more teeth, and that experts should not be overruled by politicians.

Mr. Kelly clearly states that he is opposed to the Enviromax proposal to import garbage to our Region for the purposes of landfill and incineration. He is disappointed that the current Ministry of Natural Resources has done nothing to stay the project or prevent damage to the site, a Wetland, stating that the old values of this ministry as a ministry of gatherers and reapers (it started as a ministry of forestry and mining), must be brought up to date with the more current needs for stewardship of our natural resources. "We need some consistency—instead of criticising Brazil for cutting trees, we should be passing legislation to protect our own forests." (He used Enviromax and Temagami as examples).

Re. the MNR and aggregates, he also shares the concerns of citizens in Paris faced with an extraction proposal.

Mr. Chris Stanek, NDP was interviewed on August 25th at the Enviromax site. The young Mr. Stanek, at 23, has already been past president of the Ontario Youth Parliament (a multi-party organization) for two years. He has just completed a trip to Russia, and plans to practice Provincial politics while continuing to in his studies at Guelph by correspondence. He states that if his party is elected, he has no intention of being a back-bencher.

His party also has reasonable environmental policy. Mr. Stanek objected in principle to export of Toronto garbage, stating that the environmental problems created by garbage must be dealt with properly. "It makes more sense to do it properly, by recycling more. Although costs will be high, it will cost less to do it now than later. All development has a human cost."

He states that legislative reduction of packaging and use of chemicals in our products will minimize these human costs. Clean-up costs and health care costs would be lower, quality of life higher. Citing Elmira as an example, he says that the jobs could have been saved if the MOE had acted on its information earlier.

Mr. Stanek is opposed to the Enviromax project for Haldimand. On viewing the Wetlands from adjacent lands, he couldn't believe that anyone would seek to site an incinerator and garbage dump in a headwater Class 2 forested Wetland Complex.

On the subject of 0-discharge of persistent toxic chemicals, the International Joint Commission, and the Montreal Protocol, he said, "The experts say that our environment can and must be cleaned up—why don't the politicians listen? If we err at all, we must err on the side of caution."

HOPE has 800 members, 8000 petitions against Enviromax, and 33 letters of support from local and Provincial organizations. Although the Enviromax project is taking a great deal of our time, we also have position papers in on Ontario Hydro fly-ash, Regional Rural Policies studies, Regional Waste Management Master-Plan, and various development projects which may affect other Environmentally Sensitive Areas (ie Long Point) in the Region.

—Marina Martin,
Vice-Chairperson, HOPE.

HOPE NEWS, Aug 29
Continued.

Note: a questionnaire distributed to the candidates will be summarized and distributed as well

*Marina Martin
Haldimand - Norfolk
Organization for a
Pure Environment
(416) 772-3246*

Professor details dangers of incineration

In late July, HOPE had another very important public information meeting featuring Dr. Paul Connett, associate Professor of Chemistry at New York State's St. Lawrence University and special advisor on waste management to the US Congress.

Following a musical prelude by Eaglesmith and the Flying Squirrels, Dr. Connett fascinated his audience with a three-hour presentation on the dangers of incineration and landfill, followed by very viable alternate solutions which can be implemented at the local level.

Some of the stronger points made by Dr. Connett were:

- Air emissions pose a threat to health and the environment. Incineration actually produces new toxic compounds such as dioxins and furans for which there are no safe levels. Acid gases are produced and toxic heavy metals are emitted.
- What does not go out the stack is trapped in the fly ash and is highly leachable and bioavailable. (Available for absorption by living organisms).
- Current technology is not yet able to screen incoming trash properly.
- The industry's 90 per cent volume reduction claim is very misleading. For every three tons of garbage burned, one ton of ash must be disposed of.
- Incineration is extremely expensive, and wastes resources.

'HOPE' NEWS



MARINA MARTIN

When problems become evident, the political pressure to keep an incinerator operating is correspondingly high.

- Despite enormous input of public money (note that the Provincial government is subsidizing new incineration projects — see Mr. Nixon's budget), very few jobs are created.
- Incineration competes with recycling and wastes resources.

— Energy recovery from burning trash is smaller than what would be saved if the resources in trash were recycled.

— Incineration is inflexible. Once a project is committed to, it is with us for 20 years, even if superior methods are found.

— Maintenance costs are grossly underestimated and usually result in a facility operating at less-than-peak performance.

— In cineration delays the fight against global pollution. In spite of past glowing reports from Germany, this country is starting to eliminate incinerators.

— Incineration is not a long-term solution. The sooner Toronto and other potential customers deal with the real challenge — the un-making of trash, the less need there will be for incineration and landfill.

— According to the US Environmental Protection Agency, all landfills eventually leak.

— The US is desperately searching for landfill facilities for their toxic ash, and

with the rail line adjacent to the proposed Environmax facility, it may become a prime target for Buffalo and Detroit incinerator ash.

— We were reminded the proposed Environmax facility is expected to be the largest in the world. Dr. Connett had grave concerns that the proponent has absolutely no experience in the waste management field, and speculated that back-up support from an incinerator producer is very likely.

Dr. Connett was rewarded by a standing ovation from 350 concerned residents present. We must commend the public for their supportive donations, as the hat which was passed basically covered the expenses of bringing this sought-after expert to us. We also commend the eight local and Regional councillors, and Dr. Kittle, Administrative Officer of Health, who were concerned enough to attend. Our thanks also go out to the many dignitaries and representatives of local and Provincial organizations, to many to list, for their attendance.

Please remember the following date(s):

Sunday, Aug. 26 — Giant garage sale and bake sale in the Cayuga LCBO parking lot (Hwy. 54 and 3). HOPE continues to require funds for experts and operating costs, to the tune of a monthly budget of \$4,000, you may bring donations for the sale to this location after 7 a.m. or contact 772-5847 if you wish to drop off donations prior to the sale.

Thursday, Aug. 16, 9:30 a.m. — Regional Council Chambers, Townsend. Council will be dealing with a letter from Metro Toronto Public Works — SWEAP, asking whether the Region would be willing to be a "Happy Host" to Toronto's trash.

Donations continue to be gratefully accepted (PO Box 546, Cayuga, Ont. N0A 1C0). Current membership is 800 members. We encourage concerned citizens and their family members to purchase individual memberships (\$5), as our membership is a true reflection of a mandate from the public.

HOPE NEWS

is produced regularly in 3 local newspapers
There have been a total of 11 issues so far.

H.O.P.E.

HOPE
NEWS
July 26

In our quest to educate the public and decision-makers about incineration, we continue to run into politicians who expound on the virtues of incineration of garbage because of the energy created. Some go as far as to say that incineration is actually "recycling". Rubbish! Incineration is burning of garbage, with all its toxic environmental results, and with only a little bit of electricity as a by-product.

Did you know that in the 1990 Provincial budget, money has been set aside by the Province to subsidize new incineration projects! This fact was reinforced in the campaign literature of our own Provincial representative, Bob Nixon. In other words, our tax dollars will be spent to subsidize a project to which the community, as indicated by our membership and petitions, is vehemently opposed. In the Enviromax "General Overview", presented to various levels of government in 1989, it requests "Since our entire project falls well within the realms of the 4R program, we respectfully request this granting to enable us to proceed towards our hearing."

We would like to see polluting non-renewable energy sources such as coal replaced by other sources. The major concern with burning coal is that it contributes to the greenhouse effect. But burning garbage is not the solution. In this imperfect world, it must be pointed out that carbon dioxide, the major greenhouse gas, is also the main emission from garbage incinerators (not to mention dioxins, acid gases and heavy metals).

As well, incinerators are highly inefficient producers of energy. Garbage contains so many non-combustibles such as metals, that a tremendous amount of the incinerator's energy is wasted simply heating up these products. Furthermore, energy must be used to

boil off all moisture in food, combustibles, diapers and similar materials. All told, only about 15% of energy from garbage incineration can be recovered to make electricity. Ontario Hydro is legislated to purchase this energy, and does so at a higher rate. Who pays? Again, we do.

In fact, energy produced by incinerators is created so inefficiently that we actually lose energy by burning garbage. The potential energy savings from recycling the products for which incinerators compete, is far greater than the amount of energy produced by them.

Let us go with the far more realistic and environmentally sound strategies of source separation and materials recovery. In the '70's, the oil embargo proved that Canadians could reduce energy consumption. We believe that in the 90's, the garbage crisis will prove that Canadians can reduce consumption and reuse and recycle materials for the benefit of our health and environment.

HOPE strives to protect the environment through research, public education and cooperative action with community and government bodies.

—Marina Martin.

Man, not nature, makes garbage

Why is there a garbage crisis in Toronto and other populated areas of Ontario? How do we make garbage? Nature makes no garbage; it reuses everything, except the man-made materials which we put into our environment.

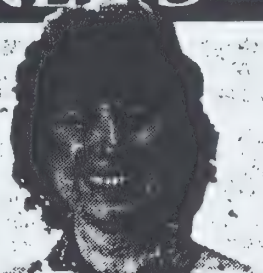
We make waste in several ways. Manufacturers overuse some materials, misuse others. Consumers make waste by mixing our discarded materials—smelly with non-smelly, toxic with safe, useless with useful. The mixing process increases the need for disposal fivefold. If everyone wanted to live beside a landfill, if we had lots of useless land, and if our environment could infinitely absorb our man-made toxins, this would not be a problem. But we know that our world is fragile, and that our land and resources are limited.

In a world where populations are continuing to grow and the farmlands and natural areas diminish, it has become obvious that landfill is an outdated waste management option. Decision makers, fearful of taking steps which will require a change of habits (heaven forbid) on the part of manufacturers, waste haulers and consumers, are looking to another "under the rug" solution. What have they come up with? Of course, they want to reduce the part that can be seen and touched and smelled. Incineration proponents have been fast to suggest a quick fix—landfill the sky!

However, in their haste to find a quick, politically expedient solution, decision-makers are ignoring the wasteful result of their decisions.

Incineration wastes resources, 80 per cent of all garbage is both burnable and recyclable. In the case of plastics, a non-renewable resource oil, is wasted in

'HOPE' NEWS



MARINA MARTIN

the case of commercial and industrial paper waste (i.e. cardboard and fine-paper), trees are wasted. Although trees are a renewable resource, our country has been unable to keep up with the replanting of denuded forests. Toronto produces 750,000 tonnes of paper waste per year in the commercial sector. Incineration will defeat recycling programs for this paper. Doubt it? Metro Toronto's plans for dealing with its garbage crisis include absolutely no recycling alternatives or commercial/industrial paper waste because IT WILL BE INCINERATED (SWEAP document 3.2).

As incineration requires high quality burnables such as paper to function well, it will compete against recycling for them. If a company is to spend \$800,000,000 on an incinerator, it must have its quota of garbage to stay in business—volume reduction cannot be its aim. If high quality burnables are removed, its task is much more difficult—it must then find a way to burn leftovers with a relatively higher percentage of toxins and non-burnables. Technology is not yet ready for that.

Incineration wastes energy and damages air quality. Every time we destroy discarded materials, they have to be replaced, with all the unabated energy demands and generation of pollution associated with primary processing. Even if an incinerator could ever be developed that was clean, incineration would still be the cause of a net increase in the unnecessary industrial activities which further deplete our environment. Even the very best incinerator means "business as usual", where it has become abundantly clear that neither we nor the planet can af-

ford this. Incineration, in other words, will delay the fight against global pollution.

Recycling, on the other hand, does allow cut-back on primary processing. This helps us fight pollution in two ways. Firstly, less pollution is created during most recycling methods, compared with the original extraction process. Secondly, less energy is required for recycling, cutting back on pollution generated by energy production.

The Greater Toronto Area's (GTA's) Solid Waste Interim Steering Committee (SWISC) has made it very clear in their "Technical Review of Expression of Interest", April/90, that the Enviromax application SW-35 does not have a recycling component worthy of consideration by the GTA, and that only the proposal to incinerate and landfill Toronto's garbage is being considered for our area. SWISC also noted that there was no local public support for this proposal, and this will most certainly affect the GTA's decisions about where to send its garbage. Keep up the good work—continue to write SWISC (720 Bathurst St., Suite 403), Toronto M5S 2R4, and Metro Toronto's Solid Waste Environmental Assessment Plan (SWEAP, Metro Works Dept., 439 University Ave., 20th Floor, Toronto, M5G 1Y8) to tell them that you don't want Toronto's garbage burned and dumped in or near our valued natural areas.

The Enviromax solution to burn and bury Toronto's trash here will destroy our local resources (forests, Provincially significant Wetlands, and an MNR designated Area of Natural Scientific Interest). It will waste misplaced resources which could be reclaimed, and cause pollution by creating the need for increased primary processing of new products. The incineration process is flexible, because once an expensive incinerator is built, it must be fed to pay off debts and make a profit. There is little chance that a recycling program will be allowed to compete for the fuel needed by the incinerator. Incineration, as well as being a threat to our local and global environment (see previous HOPE NEWS) is most definitely anti-recycling!

HOPE seeks to protect our environment through research, public education, and cooperative action with community and government bodies.

Sack The Stack

Up until a decade or so ago, Sudbury was a wasteland. Everything was blackened; nothing would grow. Then someone hit upon the brilliant idea of raising the height of the stacks for local industries—to disperse the culprit contaminants further afield. Now Sudbury is green again, yet the same poisons are still going out the stack, to add to the now global effects of pollution.

The point is, that if there were no contaminants to be dispersed, there would be no need for a stack. The consultants for Enviromax, however, tell us that there will be stacks, several very tall stacks—to service four to eight incinerators in which they wish to burn Toronto's trash.

One of the greatest environmental myths put forward by incinerator proponents is that we can save landfill space by making great volumes of trash "go away" and produce a bit of energy in the bargain. Unfortunately, this is not a workable solution. The first law of thermodynamics gets in the way. "Matter is neither created nor destroyed." In other words, chemicals and wastes will not simply go away, and they certainly will not disappear in an incinerator's fire. About 30% of them become ash; the remaining 70% sail up the stack and into the atmosphere. There they stay, until they work their way back through the environment into our soil, vegetation, water, then back up the food chain to us.

In the last issue of HOPE News, we discussed the dangers of incineration to local residents—heavy metals, newly synthesized organic compounds such as dioxins and furans, and acid gases, to mention a few. These toxins are either produced by incineration, and/or made more available for human uptake by the incineration process. There are many hundreds of compounds produced. Only a few of these are monitored, and even less are fully understood by our scientists.

The more global effects of incineration are as much a concern to us as the local fallout and the toxins which leach from the ash or fly out the doors with the trucks.

One of the main global effects of incineration is its major contribution to the greenhouse effect about which we hear so much. The gases that go up the stack are mostly carbon dioxide and water vapour. CO₂ is the main gas responsible for the greenhouse effect. Essentially, what an incinerator does, then, is convert used materials into the greenhouse gases which are at the root of our global warming crisis.

The group of acid produced by incinerators—sulphur dioxides, nitrogen oxides and hydrogen chloride, also has come under severe public scrutiny. Hydrogen chloride receives the most attention, because incinerators are the largest source, and unlike the other two, it is not transported great distances. It poses a health risk to anyone living within 50 km of the plant. Hydrogen chloride is very soluble in water, forming a strong acid called hydrochloric acid. About 12 pounds are formed for every ton of trash burned. The best incinerators in the world, with their acid scrubbers are capable of removing only 70-90% of it. If they are operating correctly. Therefore, at 4000 t.p.d., the remaining 10-30% will contribute 1,752,000 to 5,256,000 pounds per year of hydrochloric acid to our local environment. An emerging pat-

tern of complaints around currently operating incinerators, attributed largely to this acid, is asthmatic attacks among young children and respiratory complaints such as bronchitis and pneumonia.

A major concern with hydrochloric acid is the formation of local acid mists during humid conditions and during inversions. These lead to corrosion of exposed metals, pitting of paintwork (watch your homes and cars) and irritation to sensitive human tissues such as eyes and lungs. Acid rains and mists are well known to contribute to forest decline. What is not so well known, is that hydrochloric acid and acid gases increase the mobilization of mercury (also a problem product of the incineration process) in our soil and water. This is believed to be a major contributor to forest decline as well, and is proven to be the reason why fish and birds around the world are accumulating unsafe levels of mercury. Have we not 2000 acres of an important headwater forest to protect—one which supports 13 rare in Canada plants and animals, 78 bird species and 485 vascular plants? Our health, our belongings, our important natural areas, are all at risk!

Another issue of HOPE News will deal with a further global effect of incineration—the waste of valuable resources.

HOPE News Burning Questions

On this, April 22nd, the leaders and people of one hundred and twenty-five countries around the world are contemplating a global event, Earth Day. Pulpits, governments, and environmental groups across our Province and across the world are asking the same question—"How can we place a moratorium on the destruction of the air, land, water and species on our life-giving earth?"

It is appropriate, then, that we in Haldimand-Norfolk on this day ask the burning questions that have been troubling us about incineration since the announcement by a local company, Enviro-max, that they plan to site the largest incineration-landfill project in the world in our community.

The questions are many, but boil down to two basic issues. What are the implications for the global environment, of the mass effect of burning garbage around the world? More locally, is incineration safe for the host communities? An in-depth review of the most recently available literature on the subject, as well as discussions which our members have had this week with Dr. Paul Connell, a prominent American scientist and chemist who vehemently opposes incineration, have convinced us that the answers to these questions are not to be taken lightly. Incineration, a mere hot flash in the declining years of our Mother Earth, leaves us with permanent problems and temporary solutions.

Today, we will address the ques-

able technology, we have nothing to worry about. But, would you willingly choose the following set of problems?

The first problem is visible particulates (dust). The small Bristol Connecticut facility, boasting best available technology, sends three cubic metres per day of contaminated dust out the doors with its trucks, an equivalent of 1000 cubic metres per year, and it is perfectly within guidelines to do this.

We need to examine the dangers of highly reactive chemicals in our waste stream, such as chlorine, fluorine and bromine. Some of these, during the combustion process, recombine with products containing carbon to form many hundreds of toxic compounds such as phosgene, chlorinated phenols, PCBs and dioxins and furans. Also released at our infamous Hagersville tire fire, dioxins and furans are among the most toxic substances ever known to man, used in the past for chemical warfare. Are we now about to wage war on Mother Earth? Proponents of incineration point to the fact that the levels of these compounds coming out of modern facilities are small, but what constitutes "small" is highly controversial. As recently as 1987, the Swedish government concluded that 50% of dioxins and furans going into their environment is coming from trash incinerators. Their guidelines are much more stringent than ours. We must consider the buildup of dioxins in our food chain, which already delivers to us 18% of our "al-

and reduce existing sources, and never sanction new sources which are avoidable.

Other compounds formed in the above processes, such as polycyclic aromatic hydrocarbons, benzene, trichloromethylene cause cancer, liver damage, and birth defects. They take the acids out of things, contributing to acid rain. If everything in a facility works as it should, they are minimized. However, human error, overloading, wear on equipment, failure to burn at optimum temperatures, adverse weather conditions, all affect output of emissions, which are generally only tested under optimum conditions.

Acid gases must be considered when assessing the emissions from incinerators. Of particular concern is hydrogen chloride (HCl). It is very soluble in water, forming as much as 12 pounds of hydrochloric acid for every ton burned. This leads to corrosion of metal surfaces, pitting of paintwork, irritation of eyes and respiratory problems. HCl also helps metals to escape into the air. It converts chromium 3 to chromium 6, a carcinogen. Acid scrubbers in modern facilities remove only 90% of HCl, when they are operating correctly. Many toxic metals are emitted from incinerators, including mercury, cadmium and lead. Currently, trash incinerators are the biggest source of cadmium and mercury in our environment, and are second only to gasoline in lead pollution.

Mercury is known to have an impact on the neurological system. Incinerators are present near 15 out of 22 hotspots of mercury contamination in the Great Lakes. The Swedish government has calculated that incinerators emit 55% of all mercury released into their environment. Tests done recently at the Burnaby BC Incinerator used by Enviro-max as a shining example of what a proposed show emission levels four times those

1989 report by Seaton shows an increase in mercury in adjacent soils and vegetation near this facility. The vast majority of mercury from incinerators is emitted in the gaseous, non-particulate form, where the only regulated levels apply to the solid phase. Mercury accounts for 12 to 15 tons of Metro Toronto's yearly garbage output, and best available technology cannot capture any of it.

Cadmium, too, is of particular concern because it is readily taken up by plants and could thus represent a long-term threat to farming. Prolonged exposure to small amounts of cadmium leads to kidney damage. Cadmium is found in plastics, dyes, inks and batteries, which invariably find their way into the waste stream.

The range of effects attributable to lead poisoning has been known for centuries. Most disturbing is the subtle, irreversible damage which lead can do to young children's mental development, even at levels once thought safe.

Of course, the better the pollution control devices on an incinerator, the more toxic the ash becomes. For every three tons of trash that is burned, one ton of ash remains. Of that, 10% is fly ash and 90% is bottom ash. An Environmental Defense Fund study of U.S. toxicity results for ash reports that 100% of all fly ash samples, 38% of bottom ash samples and 17% of combined ash samples fail the test for lead or cadmium or both. Incinerator proponents see the classification of ash as hazardous waste to be death to the incinerator industry and are trying to have it classed as "special waste" so that it won't need to go to hazardous waste landfills. Environmentalists, of course, propose that the ash from its facility be buried on site, so that the dangers and expense of transportation are minimized. The U.S. Environmental

that no landfills eventually run, no matter how well-engineered they are, no matter how impermeable the clay or other liner. During the burning process, heavy metals are made more concentrated and are available to leaching in the form of small particle size. They are also made more bio-available, or more available for uptake by living organisms. We must remember that Environmax is located on a headwater to both the Grand and Welland Rivers.

The International Brundtland Commission suggests that the governments must exercise caution when faced with the scientific uncertainties that often characterize environmental assessments, so that the abundance of our resources—our foods, soils, forests, water and wildlife will be protected for our children, who also have a right to share in these. Examination of the dangers of incineration dictate that we cannot willingly submit to them when other solutions are available.

HOPE seeks to protect our environment through research, public education and cooperative action with community and government bodies. Individual Hope members planted in excess of 5000 trees for Earth Day, as part of a yearly ritual which some of us have observed since the early seventies.

Remember our public information meeting, May 2, 7:30 p.m., Duraville Arena.

—Marina Martin

H.O.P.E.--Keep It Local-- Be Vocal

In the continuing saga of tree-cutting on the Enviromax property, Regional Council recently made an admirable decision. To their dismay, the proponent had refused to sign the agreement required for his tree-cutting permit, and had proceeded to cut trees regardless. He nonetheless requested his permit, as he felt he had met his obligations, even though the ongoing requirements of the Region and MNR to have regard for Wetland values had not been met. Our councillors consequently made an unanimous decision to rescind their resolution to allow the cutting of trees, as well as the agreement and the permit. They are, unfortunately, powerless to step in as he currently proceeds unchecked, but at least he proceeds without the support of the Region.

The issue of local and Regional Council support for public concerns regarding the threat of burning and burying of Toronto's garbage in our community, is of paramount importance.

You have frequently heard our Regional Chairman, our Mayor and Mr. Slack echo the same reassurances—our Provincial Ministry of the Environment and its Environmental Assessment processes are the best in the world, and we are bound to receive fair hearings. Therefore we should leave the issue in Provincial hands and stop making all this fuss. We do, of course, want Environmental Assessment. It provides some measure of protection, but how much protection can we expect?

yields in the last two years. Buffering increases yields which fall below 70% of your average farm yield. It also decreases yields which are above 130% of your average farm yield. The example in the Crop Insurance brochure shows how an actual

The MOE itself tells us that it must think globally, and balance the needs of the Province against how much one community may be expected to sacrifice.

Let us examine the record of the Ministry of the Environment in this area recently.

In December, Cayuga was astounded to discover that its drinking water was contaminated with N-nitrosos dimethylamine (NDMA). The point source was suspected to be Uniroyal of Elmira, and the MOE had been aware of possible contamination problems at the Elmira site since 1979. Residents were not informed of the risk until after the fact, because of some twisted bureaucratic reasoning that contamination levels, which exceeded Provincial guidelines, were in the process of falling on a Bell curve, at the time of their discovery. We were further surprised at a meeting in Cayuga on February 27th, that Canadian guidelines allowed ten times more NDMA in our drinking water than American guidelines.

Then, last week, we read that according to a USA study, Cayuga water was further threatened, as levels of trihalomethane, caused by action of chlorine on water, was the second highest in the Western World. Again, we head that Canadian standards were out of line—350 ppb were considered acceptable by our standards, as compared with American standards of 100 ppb. Do these facts about our drinking water give you confidence in our Ministry of the Environment?

Let us also examine the MOE's performance with respect to the seventeen-day Hagersville tire fire. In the face of public outrage, the MOE scrambled to quell the fire, and did an admittedly admirable job, as did the underfunded local fire departments. But, what did they do to prevent the disaster? The so-called Recycling outfit that was responsible, had been ordered in 1987 to cleanup its act. The MOE allowed an unreasonable amount of time for each appeal, in spite of the fact that the public has the right of protection against such appeal. In fact, the MOE failed to vigorously exert the full extent of its legal powers to prevent the tire fire, according to Jay Paltrow of Greenpeace.

The MOE is now scrambling equally hard to convince us that there was no damage from the tire fire—that we suffered no more pollution than what we might find on a smoggy day in the city. In spite of the fact that the following contaminants were found, amongst many others: furans, benzene, toluene, polycyclic aromatic hydrocarbons (PAH's), zinc, oils, acid-rain forming nitrogen oxides and the greenhouse gas carbon dioxide.

Does this make you feel secure?

We are told that tires are also on the menu for the Enviromax incinerators.

No. We cannot place complete confidence in our MOE. Guidelines are inadequate. Its ability to enforce guidelines is inadequate. Offenders consider fines for exceeding guidelines as standard operating costs, and appeal decisions of the MOE to the point where the rules do not protect us, but rather the offenders.

Therefore we must keep decisions local, as far as is humanly possible. We now know the threat—we must tell our local and Regional politicians, who, after all, were elected to represent us, not tell us what is good for us.

HOPE's public meeting on March 27th was very encouraging, drawing about 400 concerned residents and bringing our membership total to near 700. Speakers briefed us on incineration, landfill and the Toronto scene (why we are the subject of the Enviromax proposal). These will be the subject of future HOPE NEWS. We also heard that the proponent had banned HOPE's hydrogeologist from the site because Enviromax had suffered some vandalism. The reasoning was, that as HOPE represents the public, and Wilf Ruland represents the public, and the public has done the proponent wrong, he can no longer cooperate with us. But, he forgets that our councillors also represent the public. What are they going to say? In the meantime, we heard that the two days spent on site by Wilf Ruland to date, had convinced him that even the hydrogeology of the site will be a contentious issue. It is, therefore, essential that he be allowed to observe tests, and we are continuing to negotiate to this end. We cannot help but ask whether such actions are reasonable from a proponent who has applied to be the major custodian of Haldimand's air and water quality.

Keep these dates in mind, April 5th, 11:45 a.m.-2 p.m., Radio Noon will be broadcasting live from the Cayuga Community Centre on the issue of a rural community threatened by Toronto's garbage. Come and air your concerns to a broader audience, May 12th, HOPE fundraising dance.

HOPE seeks to protect our environment through research, public education and cooperative action with community and government bodies.

—Marina Martin.

HOPE News: Think clean thoughts

By MARINA MARTIN

Although many of you tell us that you would rather not, when it comes to the proposal to import Toronto's garbage, or the politicians who support it, we suggest that you do think clean thoughts.

Think clean, positive thoughts about what you, personally, can do to clean up our environment. You could start with introducing the concepts of the three Rs (reduce, reuse and recycle) into your own lifestyle. Then, as a small contribution to the keeping our community clean of Toronto's garbage, with its accompanying traffic and environmental hazards, write a letter to council, to a provincial minister, to Metro Toronto, to the Solid Waste Interim Steering Committee (SWISC) in Toronto, or to Enviromax. You need not be fancy - even a one-liner will do.

The latest chapter in the continuing saga of the Slough Forest will not make you happy. In December, region 1 council decided to allow tree-cutting on the Enviromax property for the purpose of making roadways to allow tree-cutting on the Enviromax property for the purpose of making roadways to allow access of equipment. This, in spite of unanimous objection by the Town of Haldimand, the Grand River Conservation Authority and many citizen groups. However, they did show their concern by putting very stringent conditions on the permission, so that Class 2 Wetland values would be protected.

A contrast was drawn up between the Region and Enviromax, spelling out the conditions. It turns out, however, that Mr. Slack objects to the contract. He has written council a letter, stating that he will not sign the contract, that he will commence cutting trees, that he feels he has met all his obligations and that he wants his permit regardless. The tree-cutting has already been done, without permit. The planning and economic development committee went 'in camera' on March 7 to decide if any form of

legal action would be taken. It was decided that it would not.

Now, why is Enviromax in such a hurry? There is no need to do advanced hydrogeological testing at this point in time for Environmental Assessment (EA). Everyone was aware that Enviromax had applied to the GTA with a full incineration/landfill/recycling proposal.

We know he has also offered his site as an interim landfill. Toronto has the option of pulling out of the GTA's SWISC, if it sees such a move to be of advantage. We have reason to believe that Metro may not be as fair or environmentally concerned as SWISC.

Take, for example, the response of a typical Toronto councillor to a concerned rural resident: "The question of the environmental soundness of a site would be handled with great thoroughness in the Environmental Protection Act proceedings, unless the situation becomes so urgent that the Ontario legislature orders use of the site without proper study and approval," and "I try hard to be sympathetic to people whose lives may be disrupted by the location nearby of a new landfill site. Letters such as yours, which display no sympathy whatsoever for the predicament of the 80,000 people I represent, make sympathy difficult to express."

It appears that it is for Metro's benefit that Enviromax wants to do their testing now. Do we really want Metro to become interested in our rural community as a dumping ground? Do you know that Metro Toronto has powers of expropriation even here in Haldimand? Do you know that if our councillors refuse to allow a zoning change, Metro could potentially have their decision reversed by the Ontario Municipal Board? Please let your voice be heard on this issue now.

The proponent is behaving in blatant disrespect for the public consultation process and the due process of regional government. I, for one, judge people by what they do, more than by what they say. We now know what this proponent will do when he is asked to set pen to paper.

HOPE will be having an information meeting on Tues., March 27 at 7:30 p.m. in the Kinsmen Hall in Cayuga.

H-N Organization For A Pure Environment "SWISC" To Whisk Away Toronto's Garbage

Toronto admits that it has a garbage crisis, and now, after years of procrastination, it has decided to do something about it. It has allied itself with the four surrounding Regions to form a waste management plan for the Greater Toronto Area (GTA). The reasons are clear—they wish to take advantage of "the economies of scale" and the extra strength offered by a union.

The GTA consists of Durham, Halton, Peel, York and Metropolitan Toronto. Its jurisdiction ranges from Lake Simcoe, east to Newcastle and west to Burlington—an area wherein reside four million people. Taking into account expected population increases, the GTA predicts that even with 60 percent diversion of waste, some 2.6 million tonnes per year will still require disposal in the year 2000. In the meantime, four million tonnes per year of garbage continue to accumulate. Landfill space runs out in 1992.

The five Regional Chairmen, in consultation with Provincial officials, put their heads together. In March 1989, they released their plan, stressing that traditional approaches were out of date and that they required the most "innovative" plan. They would invite tenders from hopefully "Happy Hosts" across the Province to handle the GTA's garbage. Innovative indeed, considering that municipal garbage has traditionally been the responsibility of each individual region.

How, then, do they intend to find such a "Happy Host"? They are using as bait the lure to which certain politicians inevitably fall prey—growth, money and power.

Growth—The GTA promises to "maximize industrial development opportunities for host communities". The question is, do we want to industrialize our rural community and our beautiful natural areas, with major obnoxious industry and its spin-offs?

Money—GTA quotes, "It is expected that the various bidders will offer potential host communities significant royalties and... The... potential... host community must receive significant long-term benefit including payment and ongoing revenue."

Power—"The host community will have the opportunity to operate or monitor the operations of the facility." This usually entails the setting up of a Board, for example the Ontario Waste Management Corporation, on which Mayor Fuller sat before the South Cayuga issue was settled.

To implement its plan, the GTA has formed SWISC, the Solid Waste Interim Steering Committee. SWISC is made up of two elected members from each Region, one of whom is the Regional Chairman, and two representatives from the Province of Ontario. It is assisted in its duties by a SWISC Technical Committee. Its duties include development of a call for proponents and recommendation of an appropriate garbage management system for the period beginning in 1992 and continuing for 20 years.

SWISC will also assist in negotiations with a receptive community. To this end, SWISC has been extremely cooperative with us. They want to know how we feel about burning and burying of Toronto's garbage here. As well, we need to tell our politicians how we feel, for SWISC states, "The municipal government in your area that is responsible for waste management and disposal will be requested to support a proponent's proposal consistent with SWISC's desire to have a receptive community" (SWISC, 720 Bathurst St., Suite 403, Toronto, Ontario, M5B 2R4, phone 1-800-363-6098).

In Oct./89, SWISC called for Expressions of Interest (EOI's), and received 86 proposals. Of these, 16 were proposals for the entire system, including one from Enviromax Corp. (SW-35). It appears that 24 of the total EOI's came from within the GTA's territories. It would be expected that SWISC should give prime consideration to proposals within their bounds.

SW-35 tells us very little that we do not know. The proponent, a

local businessman, wishes to incinerate 4000 tons per day (estimated 8 incinerators) in an Energy from Waste plant, as well as to bury the residue and raw waste in a 125a-165a, landfill. The location is to be 2 km NE of Cayuga, within a Class 2 Wetland Complex. As the Provincial Government will be giving priority to systems which include recycling, a small recycling component has been introduced to the plan.

SWISC's agenda includes the following:

- evaluation of the EOI's, Jan-March/90.
- input from citizens organizations to develop criteria for choice of preferred management systems and proposals, Feb/90. HOPE is participating.
- draft report on alternative systems and components, Mar/90.
- public consultation on the above report, May/90.
- final "Request for Proposals" will be issued to selected respondents, Sept/90. This, in effect, establishes the "short list" of proposals.
- evaluation of the proposals and public consultation, Jan./91.
- selection of systems followed by Environmental Assessment, Spring/91.

A contingency plan is also being developed for the interim between 1992 and the operation of the final plan. Each GTA Region will nominate a potential contingency landfill, which will only be subject to the Environmental Protection Act. These nominations are expected to be revealed in March/90.

Our next HOPE NEWS will deal with our reaction to the Enviromax proposal to handle Toronto's garbage here.

HOPE seeks to protect the environment through research, public education and cooperation action with community and government bodies.

—Marina Martin.

"HOPE" Turns To "RAGE"

Rural Action On Garbage

and the Environment

Rage rises. Yes, indeed, it does. HOPE has joined with seven other rural groups, all fighting to save their land, water, and air from Toronto's uncalled-for move to send its trash our way, any way, just away from Toronto.

The foodlands, wetlands, headwaters, forests and sensitive natural areas of rural Ontario are no place for Toronto's garbage!

The Councils of the Greater Toronto Area (GTA) have failed in their duty to preserve their own environment from urban sprawl, destruction of wildlife habitat, and pollution of water and air. More recently, they have failed to be responsible citizens of Ontario in that they have failed to foresee the need for planning the handling of garbage until a crisis was reached.

It is ironic that this should happen in Toronto, Toronto is the seat of Provincial government. It is the centre of research and development and education. Some of the brightest minds in the country reside here. How could this happen in Toronto? Is it that, in spite of growing evidence that our environment cannot indefinitely support our rate of growth and demand for prosperity, major decision-makers must continue to prove to themselves and the public that bigger is better?

Toronto is also the headquarters for many major environmental groups, leaders in the Province's move towards a wiser, more sustainable economy. Why have these groups not been listened to? Provincial groups based there, such as the Federation of Ontario Naturalists, are coming to our communities to tell our decision-makers that they should not allow Toronto's garbage to be burned or dumped in our wetlands or farmlands. How, then, can the Greater Toronto Area justify its decision to send its garbage away?

Toronto has made a dismal effort to reduce, reuse and recycle. We simple folks in outlying areas have done much better—we can't use the precious resources that Toronto depends on for its lifeblood. We know their value. We have composted and recycled for years and have lived lives less demanding of the environment.

We stand armed to conserve, preserve and protect the farmlands and natural areas and recreational areas from destruction. We will share our communities in Toronto by producing its food and inviting its tourists to our regions. We will not allow it to despoil our homes, our air and our water.

To some decision-makers in Toronto, the only solution to overproduction of garbage in their communities is to send it away. Having destroyed the balance of waste production and waste handling in Toronto, they now seek to destroy the balance somewhere else.

To them, rural Ontario appears to be an "empty" land that would make a handy place to leave trash. An area with a small population appears "uninhabited". A community with areas of natural landscape appears to be "underdeveloped".

All that Toronto would gain from sending its garbage away, would be time—10-15 years. But rural Ontario would lose farmland and natural areas—a loss to all of Ontario. All of Ontario would further suffer from accelerated loss of air quality, as thousands of trucks serving the 4 million people within the GTA, head out daily to pollute the air in their 100-88 km journey to dump their dirty loads. It does not make sense!

We will not let this happen! Decision-makers within the Toronto area have the power to legislate reduction in packaging, compulsory recycling at source, reduction in the use of certain environmentally unfriendly chemicals and processes. Industry will become very innovative when it is given incentives to use recycled articles. There is a way right now to extend Toronto's landfill capacity to 1994 with these simple measures. That gives Toronto time to plan wisely, to educate its public, to be creative.

We will support Toronto by opening our arms to true recycling (not Energy From Waste, an environmentally destructive and economically foolish proposition) within our own designated industrial areas.

We subscribe to the same principles that underlie the Gruntdland Commission recommendations for sustainable development for the World Commission of the Environment and Development. These same principles were supported by 34 Canadian and Provincial environmental organizations in the Canadian Wildlife Federation's "Greenprint for Canada." They are:

1. Local communities must always have a say in economic decisions that directly affect their lives. The voices of people most vulnerable to adverse environmental impacts must especially count. Social justice must be served.

2. Biological and cultural diversity are essential to sustaining a healthy economy and varied ways of life. We must integrate conservation practices into all government decision-making and establish a comprehensive network of protected areas to ensure a rich diversity of flora and fauna.

3. Decision-makers must be more accountable to the public.

4. Economic and environmental policies need to recognize that future generations have a right to share in the country's natural resources. Policies that squander these resources for the sole benefit of those living today must stop.

5. Policies must maintain the abundance of our resources—forest, soil, water, wildlife and fish. Sustainable development does not deplete these, or it cannot remain sustainable.

6. Governments must exercise caution when faced with the scientific uncertainties that often characterize environmental assessments. Decisions must err on the side of protection and conservation.

HOPE, representing its 550 members and 3000 local residents who have signed petitions opposing a proposal by Enviromax Corp. to make money from Toronto's plight, stands firm!

We will not be happy hosts to Toronto's Garbage.

The
Haldimand
Press

Feb 21 / 90

One Man's Dream--Our Nightmare

The five Regions of the Greater Toronto Area (GTA), are facing a garbage crisis, and have formed the Solid Waste Interim Steering Committee (SWISC) to solve its problems. SWISC has been charged with the duty of calling for proposals to handle the wastes of the GTA's four million residents. It also will evaluate the proposals, negotiate with proponents, negotiate with a receptive community, and recommend a twenty-year plan. SWISC has received 86 Expressions of Interest, 24 of which originate from within the GTA. Sixteen of the total proposals have applied for the entire "system".

One of these 16 proposals comes from Neil Slack of Enviromax Corp., Caledonia. Let us examine his expression of interest, labelled SW-35 by SWISC.

The major part of the proposal is to accept 4000 tonnes per day of Toronto's garbage. That works out to about 38 times the total garbage generated by all of Haldimand-Norfolk. Enviromax wishes to incinerate this waste to reduce volume. Incineration, we know, emits toxins into the air and reduces garbage volume to a much more toxic form—ash. The ash is to be buried in a 125-165 acre on-site landfill, which will also accept raw garbage for overflow and emergency purposes. The proponent considers incineration "recycling" because he plans to produce energy to the tune of 95 megawatts (with its accompanying power grids). The Recycling Council of Canada, however, does not agree with this concept, and does not consider it recycling. He does mention the removal of recyclables, but states that this will be handled by communities in their Blue Box programs, with perhaps some refinement using machines to separate limited items.

The proponent plans to incinerate waste oils, either by a fuel-injection system or by a separate incinerator. He states that there is a "huge glut on unusable oil in storage all over the country" and wishes to burn it.

Enviromax also wishes to address the Province's wood waste problem. He plans to produce medium density fibre board, probably the only true recycling product of his project. This could be acceptable in an industrially zoned area of our Region, but it must be warned that this too has its snags. Glues contained in fibre board are toxic, and the waste woods proposed to be incinerated in the dryer system contain nails and preservatives both toxic when burned. Finally, a whole lot of incineration is proposed. He plans to accept 11,000 tonnes from locations

throughout Ontario by utilizing transfer stations. Enviromax plans to "accommodate the Ministry of the Environment" by eliminating the tire storage problem. It will "procure contracts for tire supply with large individual sites" across Southern Ontario. We are now all aware of the toxic products of combustion of burning tires—a controlled burn will emit the same products in a lower, but perpetual, volume. A "limited form of rubber utilization" called crumbing, is also being "explored" but is currently not economically viable, and has limited markets.

The proponent states to SWISC, "We have taken into great consideration the location, transportation, access, population density, soil conditions, and regional acceptance." We must point out the site has many features which dictate that this is a bad place for such a proposal. It is within a Class 2 Wetland Complex, an important headwater area and recognized environmentally sensitive area. He fails to mention its proximity (2 km) to Cayuga, schools, strip housing and the Grand River. He does mention in passing that it "has been proposed as a Class 2 Wetland Complex by the Ministry of Natural Resources", but we have documentation from the MNR that it was designated as a Class 2 Wetland Complex in 1985. Also absent is any consideration of the fact that the site is upwind from Ontario's major foodlands.

He then states that he has worked his way through levels of government and has gained support throughout his efforts. We do wonder where this support is coming from, other than one or two powerful local and regional politicians, who have no mandate from their councils on this issue. It appears that SWISC may get the wrong impression.

Conspicuously missing from document SW-35 is any indication of experience in the waste management business. Seven documents asking for evidence of successful past enterprises in the areas of waste diversion, waste receiving, waste processing, waste disposal, research, etc., are blank. Reference to the fact that the proponent has been active in the lumber and transportation business are insignificant when we consider that the proponent is applying to be the major custodian of the air and water quality for our Region, with no prior experience and apparently little environmental awareness. Considering the site he has chosen,

A rough hydrogeological report is tabled, but it includes no bore hole logs, which Mr. Slack states are unavailable. The report therefore cannot be substantiated. His 400 acres are only a fractional portion of the physiographic region called the Haldimand Clay Plain, which extends from London to Niagara Falls and Hamilton to Lake Erie, Ontario. Geographical maps also show significant clay

within the GTA boundaries. Enviromax hardly has a prize as far as clay is concerned!

Enviromax has produced for our Regional and local councillors a summary of his General Overview to SWISC. It is almost identical, but mysteriously missing is one crucial little paragraph, on pg. 18 of SW-35. It states, "My landfill area could be made available also as an Interim Facility. My intentions would be to store it until project completion at which time I plan to mine it out for processing." This is why the proponent was in such a hurry to have approval from Regional Council to cut trees, so that he could begin advanced hydrogeological testing. Did the councillors know that he was offering his site as an interim site? You can be sure that they did not!

Now, the GTA tells us that for Interim Sites in their contingency plan, assessment under the Environmental Protection Act, is all that is needed. This is a much weaker act than the Environmental Assessment Act. Only time will tell what Enviromax's intentions are here. We do know that the "Integrated Waste Management Facility" will not be operational until 1995, and that Toronto runs out of landfill space in 1992. We could end up with 3 years of landfill, which at 4000 tpd amounts to 4.4 million tonnes. At a modest \$60. per ton (tipping fees could go much higher), that would amount to \$265. million dollars for the proponent—not a bad return on an investment in cheap agriculturally zoned land and a few consulting fees.

SWISC tells us that their interpretation of a "Happy Host", or a "receptive community" is "Regional Council". You know, then, where your letters should be directed, as SWISC will not consider a proposal unless the Region agrees to take a serious look at it. A booklet of Regional Councillors' numbers is available at your local municipal office. Be sure to send a copy of your letter to SWISC, 720 Bathurst St., Suite 403, Toronto, M5S 2R4.

As the proposal stands now, Enviromax could be interpreted as "Maximum Destruction of our Environment".

HOPE, P.O. Box 548, Cayuga, N0A 1E0, seeks to protect our environment through research, public education and cooperative action with community and government bodies.

—Marina Martin.

Haldimand-Norfolk Organization For A Pure Environment

Wetlands or Wastelands

With the advent of the New Year, and our first steps forward into the 90's, it becomes evident that we must all begin to examine and become involved with environmental issues which are pressing upon us from all directions. The assault on the natural world which supports our very existence, is beginning to erode the precious ground at our own doorstep. Spearheaded by hungry developers and encouraged by a Provincial Government which is still driving for economic growth at all costs, the invasion threatens to continue. If we are to look forward to a gracious exit from this decade, action to stop the invaders must begin now.

No one has said that this will be easy. We need first to examine our own lifestyles, to fathom whether we can still fulfill our needs if we reduce consumption and decrease our horrendous output of garbage. We need to convince powerful politicians, both locally and beyond, that we care more for quality of life than for their visions of unrestrained growth, the cancer within our society. We need to make choices in our consumption, sending a clear message to the industries which are at the root of our predicament.

None the less, the horseless carriage can be stopped if we act now.

It is obvious that the public is always at the leading edge of change. So it is in Haldimand-Norfolk. Recent news of the public's response to the Enviromax Proposal, potentially the most massive invasion of our right to clean air and water ever attempted, bears witness to this fact. Few people have yet become fully aware of the impact of this proposal, which is aimed at acquiring all of Toronto's garbage (one-sixth of the Provincial total), then burning and burying it in the Town of Haldimand, two kilometres North-East of Cayuga. Yet the flow of public outcry, gently accelerated by environmental and Naturalists groups, promises to continue and eventually overwhelm the irresponsible proposal.

Although the details of the proposal keep changing and evading us, we can take the information given us to date to gather some idea of the immensity of the project. The proposed intake of garbage is in excess of forty times the daily generation of garbage in all of Haldimand-Norfolk. If we compare the facility to the recently opened York Co. Resource Recovery Centre in Pennsylvania, we can expect a daily invasion of 432 garbage and lime trucks, for a total of 864 trips. This does not include trucks carrying the rubber tires, waste oils, and waste wood to be burned or recycled. We could expect 135 tons per day of fly ash and acid pollutants, not to mention the bottom ash—all concentrated toxic residues of incineration. The proposal stresses the economy of burying the residue on site, along with the burial of raw garbage, in a 165 acre landfill. The impact of such a facility on any rural community would change its face forever.

Nowhere has the growing public opposition been more evident than at two meetings of the Region of Haldimand-Norfolk, on December 13th and December 20th. The proponent had applied for an exception to the Tree-cutting Bylaw so that he might clear six acres of roadways on the proposed site, within a forest which is part of The North Cayuga Slough Forest. On both occasions, residents filled the Council Chambers to hear 19 submissions, including articulate and informed presentations from the Norfolk Field Naturalists (NFN), Hamilton Naturalists, Federation of Ontario Naturalists, Coalition Advocating Responsible Development, local Women's Institutes, Pollution Solution, POWER (Preserve Our Water and Environmental Resources) and HOPE, as well as a number of landowners. The clear message was that this is a Class 2 Wetland complex, within a forest which has been extensively documented as being a sensitive area by the NFN, the Min. of Natural Resources (MNR) and the Carolinian Canada Program. Related

Class 1 and Class 3 Wetlands would also be impacted. Moreover, the site is a forested headwater to both the Grand and Welland Rivers, and adjacent to an MNR designated area of Natural and Scientific Interest. Given the fact that Ontario has already lost 90% of its Wetlands, and Haldimand-Norfolk has a total of only 25 Class 1-3 Wetlands, five of which will be impacted by the final project, this is indeed a valuable area.

There is obvious danger that damage to the Wetland values by tree-cutting and industrial exploration could occur prior to Environmental Assessment, thus damaging the community's chances for a fair hearing in the future.

It is hard to imagine that tree-cutting would be allowed, in view of the fact that the Town of Haldimand councillors were unanimously opposed. The Grand River Conservation Authority and the Niagara Peninsula Conservation Authority (the experts on headwaters) registered opposition. So, what happened? Spearheaded by a mayor who disregarded the wishes of her Council, the Regional Planning and Economic Development Committee decided to recommend the exception be granted, on the assumption that the proponent must know whether the clay under the forest would be suitable for landfill. This of course ignores the fact that the quality of clay on the site is entirely irrelevant, as Class 2 Wetland is too valuable to be sacrificed.

The decision was strongly influenced by the response from the MNR, that "Niagara District has no objection to 6 acres of the subject property to be cleared for experimental drilling purposes as it has minimal effect on our ministry's policies or programs." (6a. being 10% of the forested portion in question).

It appears that, as in Temagami, another forest, this time a headwater Class 2 Wetland forest, may yet be at risk.

All was not lost, however. The full Regional Council responded admirably to the presentations of concerned citizens. Although councillors are allowing severely

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restricted tree-cutting, they have slapped provisions on the exemption. They will allow minimal cutting, under the supervision of a forester, only if the MNR puts it in writing that the Class 2 Wetland designation of the property will not be damaged, and if the proponent gives up the right to cut trees already marked for a firewood cut in 1981 (note—the property was not designated a Wetland until 1985). The recommendation also makes it clear that they are allowing the testing, but not condoning the final project.

Cayuga is already experiencing the direct result of irresponsible dumping—anyone who has read the report on the closed Edwards Landfill Site, immediately adjacent to the proposed mega-project, will know that toxic substances are seeping towards Cayuga. Recent news of contamination of our drinking water by the carcinogen N-Nitroso-Dimethylamine, suspected to originate at Uniroyal of Elmira, is alarming local residents. These immediate threats and the new proposal may be more closely related than we realize.

We know, of course, that the Greater Toronto Area (GTA) is looking for a "Happy Host" to solve its problems. The GTA and the Provincial government are, in effect, introducing a "Third World" concept into the politics of garbage. They are offering rural communities across the Province a host fee to accept part or all of Toronto's garbage. Many of these communities have low populations and very compliant mayors.

Garbage is a global problem. Municipal garbage is a local problem. Toronto, currently lagging in its recycling program, is not likely to reduce, reuse, or recycle if it can postpone the painful solution. Any local proposals for recycling are noble, although such facilities should be allocated to industrial areas. The proposal to burn and bury Toronto's garbage in a headwater Class 2 Wetland, a stone's throw from the Grand River, is unacceptable. If Enviromax is indeed an environmentally sincere organization, it should demonstrate environmentally sound planning principles by selecting a future site which is not a significant natural heritage asset.

Future issues of HOPE News will deal with the hazards of the Enviromax proposal, as well as other environmental issues, both local and Provincial.

—Marina Martin.

3.

REGION OF HAMILTON-WENTWORTH

- RECOMMENDATION -

DATE: 1991 January 21

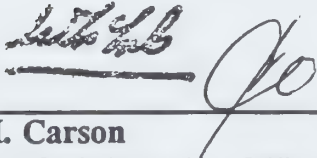
REPORT TO: Chairman and Members
Health and Social Services Committee
Engineering Services Committee
Economic Development and Planning Committee
Finance and Personnel Committee

FROM: Mr. W. M. Carson
Chief Administrative Officer

SUBJECT: Regional Environmental Office
(HEA-90-081)

RECOMMENDATION:

- a. that the Committee endorse in principle and refer to Regional Council for approval the Terms of Reference outlined in the attached report for a Regional Environmental Office;
- b. that upon approval in principle by Regional Council an implementation plan, over the next three years, for a Regional Environmental Office be formulated by the Chief Administrative Officer and brought to Regional Council; and that the implementation plan include provincial funding as much as possible and desirable.



W. M. Carson
Chief Administrative Officer

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial

Resources required and budget details for the Regional Environmental Office will be covered by the implementation plan to be prepared by the Chief Administrative Officer.

Staffing

In addition to the Director, staff will be required for policy/procedure coordination between departments, public relations/ombudsman/education functions, for maintaining and interpreting the comprehensive environmental database on the Region as well as support staff. The Office will also use formal/informal secondments of time from regional departments for projects, use consultant funds for highly specialized projects for which the Region does not have dedicated resources and cross-appointments through the Teaching Health Unit affiliation of the Department of Public Health Services with McMaster University to draw in academic expertise.

Legal Implications

The Regional Environmental Office will enhance the quality of information and coordination of effort through which the Region meets and exceeds the provincial and federal standards of performance placed on its corporate activities that may have an impact on the natural and physical environment. The Region will also be able to exercise its own authority to protect the natural and physical environment more effectively.

The Regional Environmental Office will also carry out specific responsibilities placed on the Regional Council acting as Board of Health under the Mandatory Health Programs and Service Guidelines published by the Minister of Health (April 1989) pursuant to Section 7 of the Health Promotion and Protection Act, 1983, S.O. 1983, C.10:

Community Health Status Information Requirement 3:

The board of health shall produce a report on local environmental risk areas at least once every five years, with updates provided annually. The report should be produced in accordance with information obtained from the regional and district offices of the Ministry of the Environment, the Ministry of Labour and other agencies. The report shall include as a minimum:

- (a) landfill sites (active and decommissioned);
- (b) contaminated sites;
- (c) industries with the potential for major environmental impact;
- and
- (d) any sites identified as a local environmental risk area by the medical officer of health.

Non-Communicable Disease Investigation Requirement 2:

The board of health shall investigate the occurrence of disease which is known to be associated with environmental exposure (e.g. respiratory deaths in the elderly, certain congenital anomalies and/or adverse reproductive outcomes).

Under the authority of Bill 208 (An Act to amend the Occupational Health and Safety Act and the Workers Compensation Act) Sec. 22, S.O. 1990 the Medical Officer of Health may request from any employer within the Region the most recent version of the inventory of all hazardous materials and all hazardous physical agents that are present in the work place of the employer and a copy of any unexpired material safety data sheet in respect of hazardous materials in the workplace as required by the Act.

BACKGROUND:

ORIGIN

On the evening of January 22, 1986 pesticide decomposition products were released to the atmosphere by a small fire in Stoney Creek. Widespread public awareness and concern followed the incident. Although the actual health outcome, other than anxiety, was minor the incident was not well managed and the potential for a much more serious incident was real.

The Ministry of Health established a Hazardous Chemicals Advisory Panel, chaired by Dr. Vilma Hunt, to investigate and make recommendations with regard to the incident. Regional Council received the Report of the Panel on June 16, 1987 for information. The Medical Officer of Health reported further to Council (September 30, 1987) as requested with seven recommendations that closely parallel but refine the actual recommendations in the Hunt Report (see attached report). As a result Regional Council approved these seven recommendations on October 20, 1987. The first six have been completely or significantly addressed. The seventh recommendation from the Medical Officer of Health was:

that Regional Council direct the Chief Administrative Officer to identify a work party charged with the responsibility to examine, report and recommend on the Federal Government's Position Paper, "The Bhopal Aftermath Review: An Assessment of the Canadian Situation".

This direction from Regional Council was further addressed by a report from the Medical Officer of Health (April 26, 1988). Based on this report Regional Council approved the following recommendation, May 17, 1988:

That Regional Council empower the Medical Officer of Health to put out requests for proposals dealing with the feasibility, costs, staffing and establishment of a Regional Environmental Protection Office as outlined in this Report. It is understood that the terms of reference of this Report would include, among others,

- 1) the review of "The Bhopal Aftermath Review Report";
- 2) the report on the application of this report to the Region of Hamilton-Wentworth;
- 3) a recommendation on the wisdom and feasibility of the proposal to establish such a Regional service;
- 4) to consult with, and take advice from, the many municipal authorities and offices to which these matters appertain.

No action directly implementing this recommendation has occurred prior to this time.

As a result of the hydrochloric acid spill near Alberton, Mayor Wade in the questions of the day, May 1, 1990 requested a report on the follow-up of the Chipman incident recommendations. This report is intended to address this request and the earlier authority from Council to consider a Regional Environmental Office for this Region.

The Regional Municipality of Hamilton-Wentworth is responsible for addressing a large number of environmental concerns both as a corporation whose activities have an impact on the environment and as a government body with some responsibility to regulate the activities of others which can affect the environment. The types of activities in which the Region is engaged that may impact the environment include such things as: the disposal of solid wastes in landfill or by incineration; the collection and treatment of sewage and the discharge of treated effluent into the environment; the construction of major public works such as roads; and the operation of large numbers of vehicles such as the H.S.R. transit fleet. The Region's responsibility to regulate environmental concerns are included mainly in its responsibilities over planning and health; through which it can control such things as: the protection of potable water, the division and development of land, the integrity of forests, wetland and headwaters, and the control of land uses that may have an environmental impact on surrounding areas.

The majority of environmental regulations, standards and controls are established and enforced by the Province with some concerns under the jurisdiction of the Federal government. The Province has delegated some of this authority to municipalities, conservation authorities and special purpose bodies.

The majority of Regional environmental concerns are addressed by those departments with responsibilities that have the highest potential for causing the environmental impact. The Engineering Department has established an environmental division to deal with water quality and the disposal of solid waste and sewage. Because the many users of the Engineering Department's waste management system can affect the quality of the final effluent, this Department has had to establish, monitor and enforce special controls on the amount on quality of the waste being contributed by the users into these systems. The Municipal/Industrial Strategy for Abatement is one example of this type of control.

The Health and the Planning Departments have been delegated some direct responsibility

over regulating environmental impacts. The Health Department has authority to act when environmental factors pose a threat to human health; the Planning Department within its responsibility for controlling land use and development has the ability to regulate a number of factors which can affect the integrity of the environment.

In addition the Region has established an emergency response unit to co-ordinate responses to immediate threats to the environment and to human safety and well being. This unit deals with concerns such as industrial fires, accidents and major spills.

THE PROBLEM

The areas in which the Region has a well defined role in dealing with environmental issues are well served by the various Regional departments. There is a need however to coordinate these efforts with each other and with efforts being carried out by other levels of government; to be able to address issues that cross jurisdictional boundaries and to ensure that we have sufficient information to understand the broader picture in which specific environmental concerns arise.

Because of the many potentially overlapping Provincial and Federal regulations, the Region's role is not always clearly defined. In addition the environmental issues and problems do not always follow the defined responsibilities. A health concern about drinking water quality can be related to engineering practices as well as to the amount and type of development permitted in and around designated settlement areas. The environmental quality of Hamilton Harbour is related to the type of the Region's sewage treatment facilities and to the amount of development that is approved to hook up to the system. Air quality problems, although mainly under the jurisdiction of the Provincial Ministry of Environment are affected by the type of development approved in the area and the industrial practises regulated by other ministries.

To truly understand the implications of specific environmental threats we need information about the state of the environment and changes that are incurring in the environment over time. Without this base data we may be able to address a specific incident but we will not be able to address the cumulative impacts of many events nor the potential inter-relationships between events in one area of responsibility and impacts in another area.

The public is also confused by the myriad of responsibilities. Depending on the type of issue or incident they may have to deal with a number of Regional and local departments as well as Provincial or Federal agencies. There currently is no structure within the Region to develop a corporate position on environmental issues. The public do not have a clear channel to bring their concerns and queries on environmental matters to the Region; nor can the Region at this time answer with a single voice.

Thus a Regional Environmental Office is required by the Region to meet four basic concerns:

1. The need to coordinate the activities of Regional departments in environmental matters
2. The need to develop corporate policy for Regional Council on environmental issues that integrates overall Regional environmental responsibilities
3. The need for a comprehensive data base on the quality of the natural environment and potential environmental risks to human health on which to make policy decisions.
4. The need to respond clearly and effectively to community concerns about the environment.

The attached expanded report outlines the terms of reference for a Regional Environmental Office. The office would be managed as a team by the Medical Officer of Health and the Commissioners of Engineering and Planning and Development reporting to the Chief Administrative Officer of the Region. The Office would include an ombudsman to respond to public concerns about specific actions taken or not taken by regional departments on environmental matters.

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Department of Health Services
74 Hughson Street South
Hamilton, Ontario

528-1441

Mailing Address:
P.O. Box 897
Hamilton, Ontario
L8N 3P6

September 30, 1987

TO: Chairman and Members,
Health & Social Services
Committee.

FROM: Dr. A.I. Cunningham,
Medical Officer of Health.

RE: The Hazardous Chemicals Advisory Panel Report ("The Hunt Report").

ORIGIN:

After the azinphos methyl (APM) spill on the evening of January 22, 1986, the Ministry of Health struck a working party consisting of Dr. Velma Hunt, Dr. John Chong and Dr. Ian Munro and asked them to report on a number of areas of concern, i.e. long-term health impacts; the need for monitoring; the presence of other health hazards; and the emergency preparedness. The qualifications of the panel members, and the terms of reference, are listed in the first few pages of Dr. Hunt's Report. On the 16th of June, Council received Professor Hunt's Report for information and requested staff to report in three months.

ANALYSIS:

Briefly, a spill of gaseous matter took place that night and caused a number of people to experience respiratory irritation. No clear evidence of acute poisoning was found. The dose and the duration of exposure - even among workers in the plant - are deemed so small as to reduce the chances of short-term toxic effects and also long-term toxic effects such as an increased number of cancers or an increase in congenital abnormalities.

The Hunt Committee did, however, make a number of recommendations and, in August 1987, I conferred with Mr. Jim Thoms, Planning Commissioner; Mr. Gerald Lake, Director of the Regional Laboratory; and Dr. John Chong, a physician with our Teaching Health Unit and also a member of the Hunt Committee itself.

RECOMMENDATIONS

The Hunt Report carries eight recommendations which are respectively to be found on pages 17, 22, 24, 28, 29 and 34. The following recommendations capture the suggestions of Messieurs Thoms, Chong and Lake.

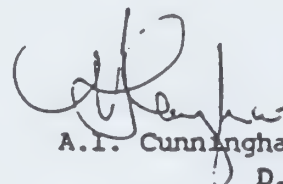
I, therefore, respectfully RECOMMEND:

- 1) that Regional Council direct the Medical Officer of Health to provide consultation to physicians in regard to any of their patients who appear to the physician to have been adversely effected by this spill.

.../2

- ii) that Regional Council approve the amendments of Schedule A of the Regional Municipality of Hamilton-Wentworth Peacetime Emergency Plan stipulating the role and responsibilities of the Medical Officer of Health in regard to decision-making concerning the hazard to human health arising from chemical spills. Draft amendment is appended.
- iii) that Regional Council engage the services of a permanent, full time additional Associate Medical Officer of Health, and necessary support staff, to inform and advise in regard to the toxic effects of chemical spills and related matters. Approval of the Ministry of Health is required, both for the appointment, program and budget.
- iv) that Regional Council direct the Medical Officer of Health, in consultation with the Chief Administrative Officer of the Region, to oversee the implementation of the "Right to Know" legislation in Hamilton-Wentworth Region.
- v) that Regional Council congratulate the Minister of Health for implementing a training program for Public Health personnel and ask that the Minister continue direct support for the initiative which is now centred in the Regional Health Department, i.e. the Teaching Health Unit Project. Curriculum for the first such session is appended.
- vi) that Regional Council encourage the Health & Social Services Committee to invite Dr. F. Baillie from McMaster University Medical Centre, to make a presentation to our Committee on the orientation and education of primary care physicians who staff emergency departments of our hospitals.
- vii) that Regional Council direct the Chief Administrative Officer to identify a work party charged with the responsibility to examine, report and recommend on the Federal Government's Position Paper, "The Bhopal Aftermath Review: An Assessment of the Canadian Situation". The Report deals with approaches to chemical spills in a Canadian setting and the role of municipalities therein. Copy of this manual is available from Elena Goldblatt, Health Department Librarian.

All of which is respectfully submitted.



A.I. Cunningham, M.D., D.P.H.,
D.T.M.H. (London),
Medical Officer of Health.

AIC/ac

- Attachments:
- (1) Hunt Report.
 - (2) Draft Amendment Emergency Plan.
 - (3) Pamphlet (Copy of John Chong's 1st Burlington/Holiday Inn Presentation).
 - (4) Copy of Cover of "Bhopal Aftermath Review" (Environment Canada).

**HAMILTON-WENTWORTH REGIONAL ENVIRONMENTAL OFFICE
DETAILED REPORT**

TERMS OF REFERENCE

Goal

The Regional Environmental Office will provide the coordination and direction to ensure that the Region as a government body and as a corporation carries out its activities and mandates in a way that maintains and promotes the quality of the natural environment and a healthy physical environment in the Region.

Mandate

- to recommend to Regional Council overall policies that enable the Region to fulfil its responsibilities in environmental matters in a comprehensive and coordinated way and which implement the environmental goals/vision for the Region arising from the work of the Sustainable Development Task Force.
- to advise Regional Council on health risks currently associated with the physical environment, the reduction of those risks, and the prevention of risks associated with future changes in the physical environment.
- to coordinate the activities of Regional departments in environmental matters.
- to provide information and to consult with Community Awareness Emergency Response (CAER) groups, Chairman's Advisory Committee on Environmental Issues, Hamilton Harbour Remedial Action Plan and other community groups.
- to provide public access for information on the Region's activities in the environmental area and to act as an internal ombudsman.
- to maintain a comprehensive data base that is capable of monitoring the health of the environment and specific threats to the health of the public.

Scope of Activities

- to collect data available on the physical, chemical and biological substances present in the Region that may pose a risk to health through environmental exposure to food, air, water or soil and maintain a comprehensive geographically-referenced database of this information. The Office may

undertake research and/or advocate for the collection of data by appropriate agencies and departments of the Region where information on the presence of existing toxic substances is not available.

- to cooperate with the Hamilton Naturalists' Club, the conservation authorities and the Ministry of Natural Resources in establishing and maintaining a natural areas inventory of the positive environmental features, flora and fauna of the Region.
- to liaise with the Regional Police Force and the Fire Departments in the Region to share information on the location of toxic substances in order to assist their emergency response role.
- to liaise with the Ministry of the Environment, Ministry of Natural Resources, Environment Canada, conservation authorities and other governmental bodies as needed to fulfil its mandate.
- to facilitate technical consultations with University and industry experts.
- to analyze the information available in the environmental risk data base to produce estimates of human exposure to toxic substances and the associated risks for human health.
- to analyze the information available in the natural areas inventory to assess the quality of the natural environment and the state of environmental degradation that may exist.
- to produce a State of the Environment Report for the Region every five years with annual updates which includes an environmental risk assessment.
- to prepare educational materials and conduct educational programs for the public with regard to the preservation of the natural and physical environment and the reduction of environmental risks. These efforts can be activities of the Office alone or cooperative efforts with school boards, academic institutions or other agencies.
- to provide direction and consultation as required for the departments and agencies of the Region and Area municipalities, in order that they may carry on their own activities and their mandate in a way that preserves and enhances the physical environment, including but not limited to: health risk assessments, protection of air and water quality, land use planning, decommissioning of industrial properties, property acquisition, waste management programs and other programs to reduce contamination of the environment, transportation planning and establishment of environmental standards, procedures and policies.

Management

- The Medical Officer of Health, Commissioner of Engineering, and Commissioner of Planning and Development shall act as a team to manage the Regional Environmental Office. This management committee will report to the Regional Management Team and the CAO. Reports to Committees and Council will go to the Health and Social Services Committee, Engineering Services Committee, or Economic Development and Planning Committee as required with referral to the Chairman's Advisory Committee on Environmental Issues whenever this is appropriate. More specific details will be included in the implementation plan for the Office.
- The three commissioners or their delegates shall meet regularly to manage the routine coordination between regional departments and to advise the Director of the Regional Environmental Office. These meetings shall be open to the Emergency Response Coordinator and representatives of other regional departments. Any regional department may request that an item be placed on the agenda. The management committee may be chaired by the Director of the Regional Environmental Office.

BACKGROUND

An internal review of the need for and character of a Regional Environmental Office was initiated by Regional Management Team in June, 1990. Since May, 1988, when Regional Council authorized exploration of the concept of a Regional Environmental Office the following changes have occurred: significant improvements in the expertise of regional staff in environmental matters, heightened public appreciation of environmental issues, immediate familiarity of some staff with other municipalities' efforts in environmental protection, and regional political direction in this area was established through the Chairman's Advisory Committee on Environmental Issues and the Sustainable Development Task Force. Thus, there was no apparent need to incur the expense or suffer the delay of the request for proposal route to develop a Regional Environmental Office. The internal review has produced this report that outlines the Terms of Reference for such an Office. This review came to the conclusion that ongoing formal coordination of the activities of key departments was essential to enhance the Region's performance in environmental protection.

Municipal Experience With Environmental Protection

The internal review examined in detail current municipal,

provincial and federal responsibilities for environmental protection and looked at the kinds of organizational changes other municipalities have made based on their review of municipal responsibilities in this area.

In May, 1987 the City of Toronto established the first municipal Environmental Protection Office in Canada to develop and implement municipal environmental protection programs and policies. This year the City of Vancouver has established its City Manager's Special Office for the Environment. Other cities such as Ottawa are hiring new senior staff into their engineering departments to coordinate environmental protection activities.

One major concern for the municipalities undertaking their own environmental protection activities is to avoid duplication with the services and programs that are already provided by provincial and federal governments. These programs and services include research, development of standards, guidelines and objectives, monitoring of air, water and soil quality, technical consultation, enforcement of legislation and examining the handling, storage, transportation and disposal of hazardous materials. The federal government also addresses interprovincial and international environmental issues.

In the process that established the Environmental Protection Office in Toronto a review of potential municipal responsibilities in the area of environmental protection that would not overlap in any major way with federal and provincial responsibilities was carried out. Four municipal roles were identified:

- 1) to review selected land development applications because some sites could be negatively affected by previous land uses and some intended uses could contaminate the surrounding environment
- 2) to provide an easily accessible source of information that is scientifically accurate, objective and comprehensive to the general public
- 3) to conduct research on and promote the use of substances less toxic than those commonly used; for example as pesticides or household chemicals
- 4) to assess human exposure to and the potential health effects of chemicals and other agents in the municipal physical environment

The current status of these potential municipal roles in the Regional Municipality of Hamilton-Wentworth is as follows:

RE: 1 Review of Land Development Applications. The Hamilton-Wentworth Regional Planning Department has taken the

initiative over the last year to address the problems associated with potential toxic contamination of industrial sites that are being redeveloped and has consulted with other Regional departments and Provincial Ministries on information needs and available data with regard to toxic soil contamination. A start has been made on assessing the information on which an inventory of contaminated sites might be based.

RE: 2,3 **Research and Information Clearing House.** The collection of scientific and epidemiological information on dangerous materials from Canada and abroad will continue to be necessary. In the last two years a virtual glut of books, pamphlets and other environmental information for the citizen/consumer has become available. There probably now is more of a need to sort out good from poor advice than to prepare educational materials themselves. Programs for the distribution of such materials to special groups such as school children, homeowners or people whose first language is not English should be considered. The Region has major responsibilities to provide clean water to its citizens and manage wastes. Also the Region has established the Sustainable Development Task Force to define a vision for the Region that will sustain and enhance its physical and natural environment. Involvement of the Region with educational programs with regard to environmental issues is consistent with these activities.

RE: 4 **Health Effects.** Although assessments of chemical exposures are not explicitly outlined, several requirements with regard to environmental health are now included in the provincial Mandatory Health Programs and Services Guidelines as indicated earlier in the legal implications section of this report.

Thus it can be seen that the environmental responsibilities for municipalities that have been previously identified by the City of Toronto are relevant to the Region of Hamilton-Wentworth and its Area municipalities. The next section considers the overall need in this Region and additional roles for a Regional Environmental Office here.

Need for a Regional Environmental Office

Both governments and the public have become much more aware in recent years how critical it is to clean up and protect from future degradation the physical environment. There is a much greater appreciation that the quality of the natural environment is not

only important for enjoyment of life but is also a critical indicator of the sustainability of human economic activities. The public is demanding access of information on the state of the environment. They are also demanding that all levels of government fully accept their responsibilities to protect and enhance the physical and natural environment. A Regional Environmental Office will provide a single focus for public input and access of information that would otherwise be scattered throughout regional departments. There is also evidence the public is willing to take on their own responsibilities and bear the costs that environmental protection requires.

On December 5, 1989 Regional Council adopted the Report "Directions for the Nineties: Building a Healthy Sustainable Region" that had been prepared by the Planning and Development Department as the background paper to recommend the establishment of the Chairman's Task Force on Sustainable Development. This report identified the major issues with regard to the physical environment for the Region:

1. Air Quality

- emissions (industrial, vehicular)
- greenhouse effect, ozone

2. Water Quality

- discharges to and from sewage treatment plants
- stormwater management
- drinking water quality

3. Waste Management

- landfill capacity
- 4 R's of waste - reduce, recover, reuse and recycle

4. Hazardous materials

- need for inventory
- need for monitoring
- spills prevention programme

5. Urban Sprawl: Urban Design

- need for more sensitivity to needs
- need for more social and environmental input
- need to consider effects of Greater Toronto Area

6. Genetic Diversity and Natural Habitat

- Need to ensure genetic diversity (to maintain top predators such as fish, birds, large mammals)
- genetic survival requires optimal habitat opportunities

7. Sustainable Development as Guide

- to deal with the above, plus issues from the social and economic groups, sustainable development needs to be understood

In addition emergency planning has been a major focus of regional concerns, both because Hamilton-Wentworth is highly industrialized and the several incidents that have occurred locally in the last few years. To this end the Hamilton Fire Department has acquired a state of the art Hazardous Materials Command Vehicle; the regional Emergency Control Group is actively engaged in emergency planning exercises.

The provincial Ministry of the Environment has introduced its Municipal and Industrial Strategy for Abatement (MISA) program which is involving the Engineering Department in active surveillance of contaminants in the sewer system. The Regional Laboratory's analytical capabilities are being expanded.

Most recently incidents like the contamination of the communal water supply in Carlisle that is provided by the Region have highlighted the need for close coordination of engineering, health and planning concerns. The Engineering Department has the responsibility for operating the water supply system and monitoring its quality. The Medical Officer of Health is responsible for judging whether water supplies are safe if there is evidence of possible contamination. The Planning Department has to consider the overall carrying capacity of aquifers in the Region if development is to be sustained without unreasonable cost or risk to health.

Some of the environmental responsibilities of the Region are best carried out by single departments. It would be inefficient and would avoid the challenge to individual departments to be environmentally responsible to establish a Regional Environmental Office to comment on or review all the activities taken by individual departments that might have an impact on the environment. Rather the Regional Environmental Office will provide overall policy direction and coordination and handle those matters which go beyond the specific mandate of single departments.

The role that is envisioned for the Regional Environmental Office goes beyond the scope that has been established in Toronto in several important ways: it includes enhancement of the natural environment; there is direct participation in emergency response

preparedness; a comprehensive database is a primary task and the office is designed to ensure interdepartmental cooperation and coordination because it will be under team management by the three key departments. This role is still fully within the scope of municipal rather than provincial or federal responsibilities.

The role for a Regional Environmental Office for Hamilton-Wentworth can thus be summarized as:

- encouraging coordination of the work of regional departments which affects the natural and physical environment
- providing advice on health risks associated with the state of the physical environment and the means to control them
- liaising with government and community groups
- facilitating consultation with University and industry experts
- increasing public access to the Regional expertise and information on environmental issues including regional participation in educational efforts
- establishing and maintaining comprehensive/coordinated data base which contains the available information on the state of the physical and the natural environment as well as taking action to improve the quality of information available
- ensuring overall policy development for the Region in order to implement the vision being created by the Sustainable Development Task Force

Design of the Hamilton-Wentworth Regional Environmental Office

The internal review felt that a simple secondment of existing resources would be an inadequate response to the importance of environmental issues for the Region today. This review proposed that the Regional Environmental Office would be a small unit reporting to a manager. This position would be set at the director level within the regional corporate structure in order to secure the recruitment of candidates of the highest possible calibre.

The internal review considered the option of having the Regional Environmental Office report directly to the Chief Administrative Officer independent of Regional Departments. It was felt, however, in line with Healthy City Concepts, that the real success of the Office depended on the cooperation, dedication, and coordination of departmental efforts. Therefore it is recommended that the Office be managed by an interdisciplinary team of the three commissioners who have the greatest responsibility for environmental matters in

the Region, the Medical Officer of Health and the Commissioners of Engineering and Planning and Development. The Chief Administrative Officer can encourage the success of the environmental efforts of the Region by ensuring that this cooperation takes place. Other departments would of course have access to the Regional Environmental Office.

There are several reasons that make it appropriate for the Department of Public Health Services to be administratively responsible for the Office. Health risks associated with the physical environment are a prime issue of public concern and a major consideration in the decisions which are made by other departments in carrying out their environmental mandates. Specific requirements to document areas of environmental health risk and investigate adverse health outcomes which may be related to environmental exposure are now placed on Regional Council by the Mandatory Health Programs and Service Guidelines of the Ministry of Health. However, the resources required by the Regional Environmental Office to carry out these responsibilities qualify for 75 percent provincial funding.

In addition the Department of Public Health Services is a Teaching Health Unit affiliated with McMaster University. This partnership creates cross-appointments between the two institutions. Thus the Regional Environmental Office will be able to draw on academic expertise in areas like toxicology from the University that would not otherwise be easily and inexpensively obtained. The University may wish to call upon the Region in return as a resource for providing educational field experiences in the area of environmental health. It may also be possible to obtain resources with 100 percent provincial funding for this educational component through the Teaching Health Unit budget.

The database that is established is expected to include not only information such as the location of dumpsites and possible contaminated soils but also the location of potentially hazardous chemicals used in industry. This latter information can now be obtained from workplace inventories by the Medical Officer of Health with the passage of Bill 208. This information can play an important role in enhancing the Region's emergency response capabilities. The database will be established in cooperation with the regional Police Department and the Region's Fire Departments. It will also be established fully consulting with PARCIL. It must be compatible with and integrated with PARCIL and the Region's emergency response system. In fact it will be built and function as a subset of PARCIL and/or the emergency response databases.

Sustaining a Healthy Natural/Physical Environment for Hamilton-Wentworth

The "Directions for the Nineties" report adapted by Regional Council sets out three objectives as basic directions for the Region to achieve sustainable development. The first objective is:

1. To improve environmental quality (air, water, land) and prevent further degradation.

Some programmes are presently in place which ameliorate the effects of past environmental degradation. However, much could still be done which would rehabilitate and enhance the natural environment and prevent further degradation.

This objective would serve several purposes: improve environmental quality for present and future generations and for other species; enhance the promotion of total health through improving environmental health risks, and increasing the potential for passive and active recreation; and improve the overall image of the Region making it a more attractive place to live, work and play.

The Regional Environmental Office has been designed to meet the specific responsibilities of the Region to protect and enhance its physical and natural environment. Without such a coordinated effort it will be difficult to meet the objectives for sustainable development in the Region. A Regional Environmental Office can achieve not only its specific objectives but contribute in a significant way to the overall quality of life for those who live, work and play here.

URBAN/MUNICIPAL
CA 3 ON HW A25
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**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, March 14, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - February 14, 1991

2. DELEGATIONS

2.1 Hospital Incinerators - Hamilton-Wentworth

Linda Mathews, Waste Management Branch, M.O.E. to address this issue.

2.2 Environmental Commitment Programme

Scott Galbraith, Economic Development Department to address this issue.

3. For the Information of the Committee

- a) Correspondence from Councillor B. Hinkley dated February 19, 1991, re: The Arts Community, The Environment, and Business.

March 14/91

- b) Correspondence from Eco-Logic, February 19, 1991, regarding Laboratory-Scale demonstration of Contaminated Harbour Sediment Treatment Process (Due to bulk, the information is available for perusal in the Regional Clerks Office)
- c) Correspondence from Mr. J. Taplay, March 4, 1991, re: chlorofluorocarbons

4. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon
October 12, 1990	Proposed Composter To Be Built In The Town Of Dundas	Tabled until delegation wishes to address issue
January 10, 1991	State of the Environment Report - 1990	Referred to the Sub-Committees of CACEI

4. ADJOURNMENT

1b

**MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m. on Thursday, February 14, 1991 in the Committee Room, 15th Floor, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillor B. Hinkley,
B. Vanderbrug, G. Birchall, R. Baetz,
B. McHattie, P. Muldoon, B. Thompson, C. Katz

Absent with Regrets: Councillor G. Copps - Vacation
Councillor H. Merling - Vacation
Wm. Pedder - Vacation
Prof. K. Murphy - Another commitment

Also Present: Mr. Scott Dorland, Mr. John Vogt, Marina Martin, H.O.P.E.;
Jim Halliday, Jim Barnett, Ray Stewart, M.O.E., Val Terluk,
Dr. B. Gibson, Ken Pidsadny

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act (None)
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - January 10, 1991
(McHattie/Hinkley) be received and adopted as presented. **CARRIED**

2. DELEGATION

2.1 Canadian Manufacturing of Polystyrene Cups and Recycling Aspects

Mr. Scott Dorland, Fibra Can, addressed committee members on Polystyrene cups and recycling. A brief explanation on the two types of polystyrene, a) crystal and b) expandable, were introduced and explained to members. Mr. Dorland thanked members for their time and will provide members with the background information with regards to his fact findings.

(Thompson/Muldoon)

That this information be forwarded on to the Solid Waste Sub-committee for their perusal. **CARRIED**

2.2 Hospital Incinerators

Mr. John Vogt (Ministry of the Environment) addressed committee members on the incinerator usage at Hamilton area hospitals. Members were advised that there is on-going negotiations between the Ministry of the Environment and the Ministry of Health with regards to this matter. Area hospitals either incinerate and/or dispose of their waste through haulage firms.

Staff advised members that SWARU does not have the authority, except for kitchen waste, to accept hospital waste for various reasons, especially pathological and contaminated waste.

The MOE representative explained that the incinerator, from the Ministry's view, is not the culprit, but the correct operation of the unit is important. Area hospitals are instructed and monitored on the correct operational use of the incinerator.

Mr. Ray Stewart, Ministry of the Environment, will arrange for a representative from the Waste Management Branch to be at the next meeting. Dr. B. Gibson, Health Department, will contact representatives from the area hospitals to be present as well.

(Baetz/Hinkley)

- a) That correspondence be sent to the West Central Branch of the Ministry of the Environment requesting time tables, future plans of hospital incinerators and operational audits that have been performed in the Hamilton-Wentworth area hospitals;
- b) That a second letter be sent to the Ministry of the Environment in Toronto, requesting information on the negotiations between the Ministry of the Environment and the Ministry of Health on any coordinated programme that deals with hospital incinerator waste.

CARRIED

(Hinkley/Baetz)

That this item be brought back to the next regular scheduled meeting, or until the representatives from the Ministry of the Environment and hospitals can address committee concerns.

CARRIED

2.3 Concern of the Construction of a Waste Incinerator in Haldimand-Norfolk:
Accepting garbage from the Greater Toronto Area

Marina Martin - H.O.P.E. addressed committee members.

(Muldoon/Baetz)

- a) That the committee be advised of any further undertaking or development with respect to the proposed construction of a waste incinerator in Haldimand-Norfolk and accepting waste from the Greater Toronto Area;
 - b) That, if further action occurs, that Ms. Marina Martin, H.O.P.E. (Haldimand-Norfolk Organization for a Pure Environment) be invited back to committee to advise and inform committee members on further actions;
 - c) That, if further action occurs, this be referred to the Natural Areas Sub-Committee.
- CARRIED

3. BUSINESS ITEMS

Regional Environmental Office (HEA-90-081)

(Note: Referral from the Engineering Services Committee meeting of
January 28, 1991)

Dr. B. Gibson presented the Regional Environmental Office proposal to members.

(Vanderbrug/Muldoon)

- a) That the Committee endorse in principle the Terms of Reference as outlined in Report HEA 90-081 for a Regional Environmental Office;
 - b) That the next phase, the consulting process, be that the Region further solicit from within the organization and from other regional environmental offices for their comment and input.
- CARRIED

Chairman's Advisory Committee
On Environmental Issues

Minutes

February 14, 1991

NEW BUSINESS #1

Environmentally Sound Purchasing

(Thompson/Baetz)

That this item be received for information.

CARRIED

4. ADJOURNMENT

On motion (Baetz/Thompson) the meeting adjourned at 11:20 a.m.

CARRIED

Chairman

Secretary

ECONOMIC DEVELOPMENT DEPARTMENT

MEMORANDUM

2.2

TO: Ken Pidsadny
Legislative Assistant
Clerk's Department

YOUR FILE:

FROM: Scott Galbraith
Manager, Business Development
Economic Development Department

OUR FILE:
PHONE: (416) 546-4233

SUBJECT: **Environmental Commitment Program:**
Presentation to Chairman's Advisory
Committee on Environmental Issues

DATE: February 27, 1991

Regional Council approved the undertaking of the above noted proposal at their meeting of Feb. 19, 1991 (see attached). The report suggested that a presentation be made to the involved committee's to gain insight and help form a steering committee to oversee the project.

Would you please arrange for a presentation to be made at the next committee meeting. Our staff and representation from Olynyk, King and Duda Advertising will advise the committee of the proposed program.

Pursuant to Council direction, a representative of this Committee should be appointed to the Environmental Commitment Program Steering committee.

Should you have any questions, please do not hesitate to contact this office.

SG
DSG/hav
Attachments

FEB 22 1991

OFFICE OF THE REGIONAL CLERK

MEMORANDUM

TO: Mr. S. Ghanem
Commissioner of Economic Development
Economic Development Department

FROM: Mrs. Mary Gallagher
Legislative Assistant
Office of the Regional Clerk

PHONE: (416) 546-4115

SUBJECT: Economic Development and Planning Committee
Report 3-91, Item 5

DATE: 1991 February 21

Subjoined, please find Item 5 of Report 3-91 of the Economic Development and Planning Committee which was approved by Regional Council at its meeting held on Tuesday, February 19, 1991.

mg
:mg

5. Environmental Commitment Program (ECO 91-14)

- a) That a Regional Environmental Commitment Awards Program be approved pursuant to the preliminary outline in Report ECO 91-14;
- b) That the Chairman's Task Force on Sustainable Development and Environmental Issues be requested to review and comment upon the preliminary outline;
- c) That a Steering Committee comprised of the following be formed to direct the implementation of the project pursuant to Schedule "1" attached to Report ECO 91-14, and to judge submissions and select award winners:

Regional Chairman R.J. Whynott
Chairmen and Vice-Chairmen of:
o Economic Development and Planning Committee
o Chairman's Task Force on Sustainable Development
o Chairman's Advisory Committee on Environmental Issues

- d) That funding of this project (estimated not to exceed \$40,000), be approved within the Economic Development 1991 Current Budget, through allocations outlined in existing business publications and special projects (Accounts #812100-56320, 56323). **Item 4.2**

4.2

REGION OF HAMILTON-WENTWORTH

- RECOMMENDATION -

DATE: January 31, 1991

REPORT TO: Chairman and Members
Economic Development and Planning Committee

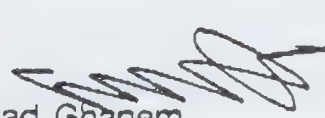
FROM: Mr. Saad Ghanem
Director of Economic Development

SUBJECT: ENVIRONMENTAL COMMITMENT PROGRAM - ECO-91-14

RECOMMENDATION:

- a) That a Regional Environmental Commitment Awards Program be approved pursuant to the attached preliminary outline;
- b) That the Chairman's Sustainable Development Committee, and Environmental Issues Task Forces be requested to review and comment upon the project outline;
- c) That a steering committee be formed to direct implementation of the project pursuant to Schedule "1" of the attached report; and to judge submissions and select award winners;
- d) That 1991 costs associated with this project be derived from within the proposed Economic Development Department current budget allocation.
- e) That funding of this activity be approved within the Economic Development 1991 Current Budget, through allocations outlined in existing business publications and special projects accounts. (Acct. #812100-56320, 56323).

Respectfully submitted,


Saad Ghanem
Director of Economic Development

...2/.

ECO-91-14

Page 2

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Estimated 1991 cost for the "Environmental Commitment Awards Program" should not exceed \$40,000. Funding can be allocated within existing promotion and publication accounts pursuant to the proposed 1991 current budget. The proposed Department budget adheres to Regional Council's zero percent increase guidelines.

Economic Development staff can co-ordinate the program with the existing staff complement.

BACKGROUND:

Environmental awareness continues to warrant increased Regional concern. Several key initiatives have been approved since the beginning of the current term of office. Most notably, the Environment Issues, and Sustainable Development Task Forces have garnered considerable citizen support and heightened awareness throughout the Region on the important issue of the environment.

Fostering environmental consciousness in our business community will help augment all our resident's quality of life. In 1990 the Region played a major role in the first "Business Opportunities in the Environment" Symposium. This highly successful venture provided a forum for local enterprises to discover viable products and services which not only showed profit but which also demonstrated a concern for the environment.

Building upon these successful initiatives, a meeting was convened with Regional Chairman, the Economic Development and Planning Committee Chairman and staff of this Department to suggest possible future actions. A key issue was "how to enhance local economic development and promote environmental awareness". Staff were requested to embellish the 1991 work program to achieve this objective.

DISCUSSION:

Staff met with the Region's advertising agency (Olynyk, King, and Duda) to discuss innovative methods to heighten local "environmentally conscious" economic development. Following much deliberation a program outline was formulated which suggested creation of an award honouring local business with a demonstrative commitment to the environment.

...3/.

ECO-91-14

Page 3

The attached outline (Schedule "1") reflects a tentative program. Following endorsement by Regional Council, this proposal should be presented to the Sustainable Development, and Environmental Issues Task Forces. These groups may have valuable insight to offer, in particular with respect to the selection criteria for awards. Also, a representative of each group could form the nucleus of a steering committee to oversee the project and select award winners.

Other members of the steering committee should include Chambers of Commerce, Regional Council, and other special interest groups deemed suitable.

The official launch of the program could be the 1991 Business Appreciation Night (June 19, 1991). Submissions would be received until September and evaluated the same month. The awards could be presented in October, possibly in conjunction with the second annual "Business Opportunities in the Environment" Symposium.

DSG/ah

ENVIRONMENTAL COMMITMENT AWARDS PROGRAM

OBJECTIVES

- a) To annually recognize **businesses** in Greater Hamilton who have made a distinct effort to be environmentally responsible.
- b) To encourage all **business** in Greater Hamilton to take environmental concerns into account when making decisions.
- c) To elevate Greater Hamilton on a National/International level as a Region that is making environmentally positive **business** decisions.

TARGET AUDIENCE

Businesses in Greater Hamilton including Industrial and non-Industrial sectors.

STRATEGY

To create and implement an award to honour outstanding environmental action in harmony with **business** activity undertaken by businesses in Greater Hamilton.

A complete campaign will be developed to encourage **businesses** to enter and to solicit entries. This campaign will include advertising and public relations components.

IMPLEMENTATION

- * Program will be launched at the 1991 Business Appreciation Night (June 1991)
- * Once entries are received, respondents will be forwarded a kit which details the entire awards and selection criteria.
- * No entry charge.
- * Individual entries or nominations will be accepted.
- * A panel of judges will be appointed.

Page 2

AWARDS

- * Entries will be submitted in 3 different categories:
 1. Waste Management
 2. Environmentally Friendly product introduction
 3. Environmental Entrepreneurship
- * Gold, Silver and Bronze awards will be given in each of the three categories.
- * Winning entries will receive an award (statue/plaque), and the Gold winner in each category would have a \$500 scholarship awarded in their name to McMaster University or Mohawk College.
- * Winning entries will receive recognition in media advertising and publicity. Post-award publicity/P.R. will take place on a national/international basis.
- * Awards to be made at Business Opportunities in the Environment Symposium (October 1991) closing dinner.

TIMING

- * Launch at the Business Appreciation Day 1991.
- * Campaign runs June 1991 to September 1, 1991.
- * Judging will be in September 1991.
- * Awards will be presented at:
 - 1) Business Opportunities in the Environment (Oct 1991)

(Program concept developed by Olynyk, King and Duda)



CITY COUNCIL

Brian Hinkley Alderman Ward Three

3.a

Res: (416) 512-7500

February 19, 1991.

RECEIVED

FEB 21 1991

REGIONAL CLERKS OFFICE

Mr. Ken Pidsadny,
Secretary,
Chairman's Advisory Committee on Environmental Issues,
The Regional Municipality of Hamilton-Wentworth,
119 King Street West,
Clerk's Office, 15th Floor,
P. O. Box 910,
Hamilton, Ontario.
L8N 3V9.

Dear Mr. Pidsadny:

Re: THE ARTS COMMUNITY ... THE ENVIRONMENT ... AND
BUSINESS

Please find enclosed, for your information, an interesting project that is currently being operated in Vancouver and Nanaimo, British Columbia.

I believe the enclosures clearly explain how the Arts Community, the Business Community and the Environmentalists can develop a worthwhile project for the community.

This information was forwarded to me by Ms. Victoria Munroe. Ms. Munroe is particularly concerned about the artistic and environmental benefits to be developed by such an undertaking.

Finance & Administration
Committee
-Chairman

Keep Hamilton
Clean Committee
-Chairman

Seniors Centre
Feasibility Study
-Chairman

Harbour Task
Force
-Chairman

Handbill
Sub-Committee
-Chairman

Hamilton Municipal
Retirement Fund
-Chairman

Hamilton Seniors
Council
-Liaison

& Recreation
Committee
-Member

Hamilton Non-Profit
Housing
-Member

Regional Engineering
Committee
-Member

Regional Economic
& Planning Committee
-Member

Chairman's Environmental
Advisory Committee
-Member

Hamilton-Wentworth
Children's Aid Society
-Member



Recycled Paper

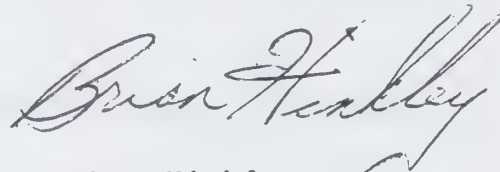
Page 2 ..

I would request that your organization discuss the merits of becoming involved in developing a similar project here in Hamilton.

Should there be interest from the Arts Community, the Business Community and those involved in the environment, I would be willing to assist in bringing together the interested parties.

I would appreciate hearing feedback from your organization.

Yours very sincerely,

A handwritten signature in cursive script that reads "Brian Hinkley". The signature is written in dark ink and is positioned above the typed name and title.

Brian Hinkley,
Alderman, Ward 3;
Chairman of the Keep Hamilton
Clean Committee;
Member of the Chairman's
Advisory Committee on
Environmental Issues.

BH:dd

c.c. Ms. Victoria Munroe, 20 Bold Street, Apt. #4,
Hamilton, Ontario. L8P 1T2.

FEB 6 1991

January 24, 1991

Mr. Brian Hinkley
Alderman Ward 3
City Hall
71 Main Street, West
Hamilton, Ontario

Dear Mr. Hinkley:

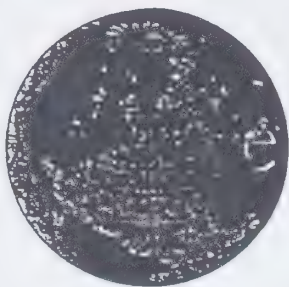
Attached is an article that I'm confident you'll find of great interest as I did. I've taken the initiative to respond to this article because I feel that a similar program has great potential to develop here in our city with the help of local supporters, public outreach and a creative team. I have contacted the Communications Manager of Imagination Market and she has been kind enough to send literature on the organization. (See attached copies.)

I am addressing this program to you, asking for your opinion and thoughts in hope that you may guide me through the proper avenues or to other organizations in the city that have the same objectives as myself which may find this information challenging and exciting. I trust that you will give some time to this since the re-use system is of extreme importance and I know your mandate for the election is to concentrate on cleaning up the air, water and land of Hamilton.

I look forward to your reply.

Sincerely,

Victoria
Victoria Munroe
20 Bold Street, Apt. #4
Hamilton, Ontario
L8P 1T2
525-2943



earthworks



IN THE EARLY '80s, teachers Kate Hickock and Daphne Trivett moved with their families to Vancouver, B.C., from the U.S. East Coast, bringing with them a unique recycling/reuse program now known as the Imagination Market (I.M.). A concept borrowed from an artistic reuse program at the Boston Children's Museum called "Recycle," the Imagination Market supplies safe, industrial cast-offs, cut-outs and leftovers — otherwise destined for landfill — to creative people and projects in all parts of the world. I.M. stores and its mail-order business are getting people to look again at society's discards.

Originally intended as a mobile workshop at various events and festivals, the market's first outreach debuted at Vancouver's Paper Fair in 1981. Immediate success led to a need for storage and work space, and the city of Vancouver, appreciating the I.M. concept and outreach programs, donated a space for storage. Soon, a schedule of weekly in-house workshops and a mail-order system were established, and I.M. sought larger accommodations. In June of 1989, I.M. moved to its present 11,000-sq.-ft. space in Vancouver at 528 Powell St.

The Vancouver location (one of three including a Nanaimo, B.C., branch and another in Edmonton, Alb.) includes warehouse space and a materials prep room as well as a large store, the workshop area and an art gallery. Monthly exhibits at I.M.'s Found Art Gallery feature artists who use cast-offs and recycled materials. (A recent exhibit "Totally Rust," opened for an artist whose sculpture is based on rusticated, reclaimed items.) In the store, window displays and suspended vignettes prepared by the store staff show customers what can be done with I.M. materials. Another area houses individually priced "specialty items" such as adhesive neon scraps, imperfect beads or vibrant foam reclaimed from the grips of windsurfers.

A STAFF OF NINE full-time, 21 part-time and over 100 volunteers gathers up five van loads per week of scrap from more than

300 manufacturers, commercial printers, sign makers and other industrial producers of interesting cut-outs and leftovers. In the stores, patrons can choose from 500 bins of colored cardboard, tissue paper, shiny vinyl, scraps, punch-outs, leather, paper, plastic, fabric, wood and rubber. Scraps are transformed into almost anything — from costumes, spaceships and jewelry to artwork, toys and party decorations. But if the creative spirit should wane, an I.M. guidebook, "Imagibook," offers recyclers ideas and hints about connection methods, adhesive types and project examples.

Individuals, groups, families, students and seniors can join the market (\$10 for students and seniors, \$15 for adults and \$25 for families). As members, everything they buy in the store is half price. They also receive a newsletter, "The Imagineer," four times a year. Members and dabblers alike can participate in weekly workshops, and free (a contribution is sometimes suggested) outreach programs at fairs and festivals introduce the market's unique conservation approach to the public.

In outreach workshops, I.M. volunteers create a theme, like hats or flowers. According to Roxanne Pearce, communications manager for the market, that way children don't have to carry something they've made. The children can wear their creations, which then become part of the whole festive atmosphere. Patrons enter an I.M. area or booth, are given a quick explanation of how the materials are used and then have free rein to create. Often, when lines are long, there is some sort of time restraint, but I.M. tries to avoid any restrictions at all on creative recycling.



One of greater Vancouver's biggest shopping centers, Metrotown, employed the Imagination Market to create decorations for its first and second anniversary celebrations.

continued

earthworks, *continued*

Themes for both in-house workshops and outreach programs run the gamut from musical instruments, Father's Day gifts, dragons, water toys, sun hats and puppets. "We try not to limit it," notes Pearce. "So in promoting water toys, I suggest floaters and sinkers and squishers and squirters. We don't want to just have them come in and build a boat." Adult workshops center around jewelry and more sophisticated, wearable things. Grown-up customers come to make gifts, projects for home or classroom, or to simply rediscover creativity in a casual, social setting.

THOUGH SCHOOL groups and teachers are a large part of the I.M. constituency, the Imagination Market is strongly involved



The Imagination Market's "reduce, reuse and recycle" philosophy involves creating decorations for not only shopping centers, but corporate functions, community events, etc. These centerpieces were commissioned for Vancouver's Children's Festival.

with the general public through events and festivals and drop-in workshops. Says Pearce, "That's becoming even more important as governments, corporations and groups are seeing the interest as well as the importance of environmental concerns — the fun side to recycling." Continues Pearce, "The creative part of our mandate is almost as important, or just as important as the recycling aspect. Our mission statement reads: 'a non-profit organization dedi-

cated to encouraging creativity and promoting waste awareness

by reclaiming safe industrial discards for imaginative reuse.' It's very equally a concern for reclaiming and also creative reuse." I.M. lives by the three R's: "reduce, reuse and recycle."

According to Pearce, the founders of the market believe recycling is the least important of those three. "In fact, we try to avoid the word recycling even though we call ourselves a non-profit artists and recycling foundation. We really aren't recycling, we're reusing."

An I.M. list of area printers, manufacturers and retailers donating things they would normally throw out has taken years to develop. Now, I.M. receives several calls a day from individuals who think they have something the market can use. "People are starting to look at their cast-offs in different ways, and it's exciting to see," says Pearce. Additionally, if anyone contacts the Recycling Hotline in Vancouver, they're often directed to the market.

Gathering the materials requires a lot of legwork and phoning. "I'm told a lot of our suppliers think we're nuts," laughs Pearce. "They think we're a really strange group of people who get excited about sticky paper that has holes in it." Actually, those suppliers' waste costs are being cut by the market's free weekly pick up.

A LONG-TERM GOAL for I.M. is to expand nationally and eventually internationally. Through mail-order service, I.M. has sent reclaimed items to the States and as far as Romania and Poland. I.M. raw materials are sold in kits by mail order (a brochure lists possible contents), or by group size for hat or mask workshops. So while retail expansion is on hold (a board committee is conducting careful research), the mail-order branch of the market is fulfilling international outreach and education capacities.

Explains Pearce, "Expansion is very important, but we're also trying to advance our own area and get much more involved with adults. Another area we've found to be very successful is party decorations and contract decorations for shopping mall anniversaries or sales. We go in as a service and decorate for them." I.M. has been involved in such projects as corporate and government parties, room decoration and custom centerpieces, stage sets and art direction. One of greater Vancouver's largest shopping centers, Metrotown, has employed I.M. to create an environment for its first and second anniversary celebrations.

With a membership over 2,500, the Imagination Market recorded serving over 25,000 shoppers in 1989 and over 130,000 workshop participants. Weekly group bookings continue to grow and reflect the financial expansion I.M. has witnessed — from a gross revenue of \$7,000 in 1984 to a budget of over \$500,000 in 1989. Revenue over the last two years has jumped from \$350,000 to \$750,000.

It seems the enthusiasm of I.M.'s staff and volunteers is really reaching out, and this year, over 75-percent self-funded through sales of workshops at fairs and events, the service is free to the public. ■

Editor's note: For more information about the Imagination Market, contact: Roxanne Pearce, Imagination Market, 528 Powell St., Vancouver, BC V6A 1G9, CANADA; 604-253-1033.

January 9, 1991

ROXANNE PEARCE
Imagination Market
528 Powell Street
Vancouver, B.C.
V6A 1G9

Dear Ms. Pearce:

I was very much impressed with the article in the November issue of VM & SD, outlining the operations of the recycling/reuse program in your city. As a visual person, I'm very much familiar with what can be re-used and have been creating design elements in my home from materials I have purchased after scanning demolition yards. I really believe that there is a visual sector of the population out there that can now play an incredible role in restoring our environment because we see many more creative uses out of things than many of the average person. What your establishment has created is absolutely fantastic and congratulations to you all!

I think there is great opportunity to introduce Imagination Market concepts in my city and with so many families dealing with recession hardships, these workshops could create new family activities and introduce the conservation approach to the public at the same time. Please send me further information on your organization and hopefully we can discuss more about the program. You may contact me at the address below or call me at (416) 525-2943. I anxiously await your reply.

Sincerely,



Victoria Munroe
20 Bold St., #4
Hamilton, Ontario
L8P 1T2

What do people say about Imagination Market™?

"Seeing what people — big and small — make in here — brightens one's day! Long live the Imagination Market!!"

"This is an incredibly creative outlet for kids and adults. I love it."

"I really think this place is neat! If I was a kid, I'd live here all day!"

"A fine, positive way to foster kids' creativity!"

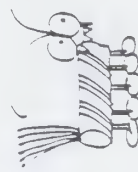
"Wonderfully magical, especially for youngsters and oldsters."

And what gets made?

Masks
Hats
Robots
Vehicles
Dolls
Mobiles
Puppets



Sculptures
Insects
Collages
Patterns
Boats
Flowers
Machines



Practically Anything!



HOW WE'RE FUNDED

The Imagination Market maintains a high degree of self-sufficiency with the bulk of our revenue coming from the sale of children's workshops to the community. Festivals, Shopping Malls, Community events and businesses sponsor the Imagination Market Workshop as a **FREE** hands-on creative activity. Other revenue comes from sales, memberships and fundraising. Government job grants provide the remaining income to this viable and expanding non-profit business.

★ IMAGINATION MARKET™

Vancouver Headquarters
528 Powell Street
Vancouver, B.C.
V6A 1G9
253-1033

Nanaimo
308 Fitzwilliam Street
Nanaimo, B.C.
V9R 3A5
754-7036

Store Hours:

Thurs., Fri., Sat. and Sun. 11 am - 5 pm

Drop-In Workshop Hours:

Sat. and Sun. 12 Noon - 4 pm

Collections:

Mon. through Fri. 8:30 am - 4:30 pm

FROM YOU...



...TO US!!

Creative Recycling

from

IMAGINATION MARKET™

a non-profit arts and recycling
association.

IMAGINATION MARKET WANTS YOUR CAST-OFFS!

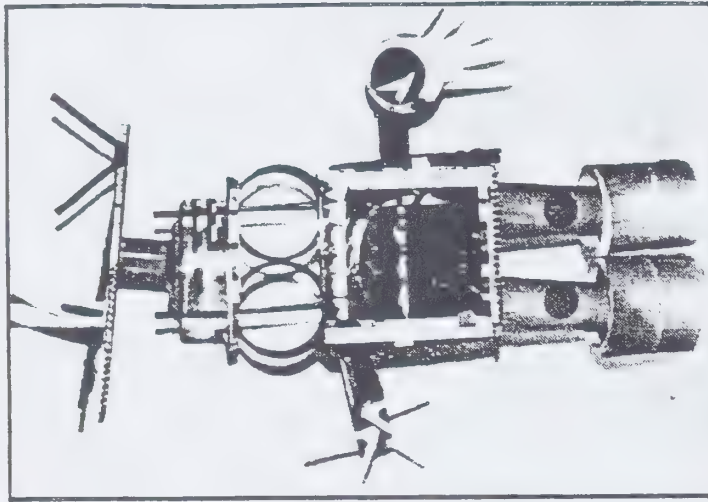
Since 1982, the Imagination Market has been collecting scraps, offcuts, samples, old or excess stock and waste packaging from Lower Mainland businesses and manufacturers. Through the imagination of kids, these waste materials are transformed into spaceships, puppets, flowers, hats, animals . . . in fact anything that can be imagined can be made from recycled scrap. The Market is continually growing as is the demand for new materials. With your help we can meet this demand as well as promote recycling and increase creativity.

OUR BUSINESS IS PICKING UP

If you set your usable scrap aside, Imagination Market will pick it up regularly, at your convenience and without disrupting your operations. We currently collect from over 200 businesses who appreciate our reliability and efficiency.

WHAT HAPPENS TO THESE MATERIALS?

Once collected, materials are dropped off at our warehouse, sorted and prepared by teams of mentally handicapped volunteers either for sale through our non-profit store or for re-use in our many kids' community workshops and in our own FREE Drop-In Weekend Workshop.



*Last year over 200,000 children and adults played with Imagination Market materials.

*Over 300 van loads of materials were diverted from the landfill.

WHY SHOULD YOU DONATE YOUR SCRAP?

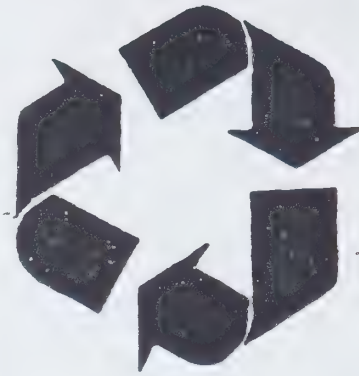
On the practical side it's obvious — you'll save on disposal costs. Ideologically, your support means employment opportunities, work training for the mentally handicapped, accessibly-priced art materials, increased recycling and most importantly, the joy and self esteem experienced by thousands of children as they discover their unique creativity.

OUR REPUTATION

"What originally had started as a department project on an experimental basis, has resulted in our enlisting the aid of the Imagination Market to clear our recyclable coloured stock on an on-going basis."

The Imagination Market has proved to be very reliable. Their staff are efficient, polite and have not missed a single pick-up to date."

B.C. TELEPHONE COMPANY



IMAGINATION MARKET IS A PROUD MEMBER
OF THE G.V.R.D. RECYCLING COMMITTEE
AND B.C. WASTE EXCHANGE

36

ECO LOGIC

February 19, 1991

FEB 22 1991

REGIONAL CLERK'S OFFICE

Mr. Ken Pidsadny, Secretary
Chairman's Advisory Committee on Environmental Issues
Regional Municipality of Hamilton Wentworth
Regional Clerk's Office
15th Floor, 119 King Street West
P.O. Box 910
Hamilton, Ontario
L8N 3V9

Dear Mr. Pidsadny:

ECO LOGIC has completed a program of ten characterization and destruction tests of hazardous sediment samples from Hamilton, Sheboygan and Thunder Bay harbours using our laboratory model. During the submission by Mr. Craig McEwen and myself to the Chairman's Advisory Committee on Environmental Issues on December 13, 1990, some members expressed interest in receiving the results from this work. We are pleased to submit the draft report "Lab-Scale Demonstration of Contaminated Harbour Sediment Treatment Process". The program was completed under contract with the Wastewater Technology Centre in Burlington. Our analytical protocols were scrutinized, selected destruction runs were audited and some samples were split-analysed by Environment Canada.

The draft report includes all ECO LOGIC data; Environment Canada data is not yet available. Rather than delay your receipt of information, we submit the draft report which should address outstanding questions of the Committee. Meanwhile Mr. Craig Wardlaw and Mr. Peter Fowley of the Wastewater Treatment Centre agree that the data is as complete as possible at this time, includes system mass balances, percent of solids treated and an explanation of terms. Environment Canada data and the final report will be forwarded subsequently.

We feel that these results with real harbour sediments prove reliable, good destruction efficiencies which support our application to further test our unit at the pilot scale. We expect even better results at the pilot-scale due to better heat transfer and inlet control at the larger model.

....2

Rockwood (519) 856-9591
Toronto (416) 450-7691
Fax (519) 856-9235

143 Dennis St., Rockwood, Ontario, Canada, N0B 2K0

ECO LOGIC

K. Pidsadny, Secretary
February 19, 1991
Page 2

A draft certificate of approval to operate our propane boiler, recirculation heaters and mobile diesel generator in accordance with Section 8 of the Environmental Protection Act has been received from Environment Ontario. Also in support of our application to run a research program with the pilot-scale unit at Pier 15, ECO LOGIC prepared a document describing our analytical protocols and "Data Quality Assurance and Monitoring Program". This document is also attached. Updated site maps showing our proximity to the nearest receptors, and the trailers layout are included. We are currently constructing the pilot-scale unit at Pier 15 and, again, the Committee and Regional representatives are welcome to visit.

Yours very truly,

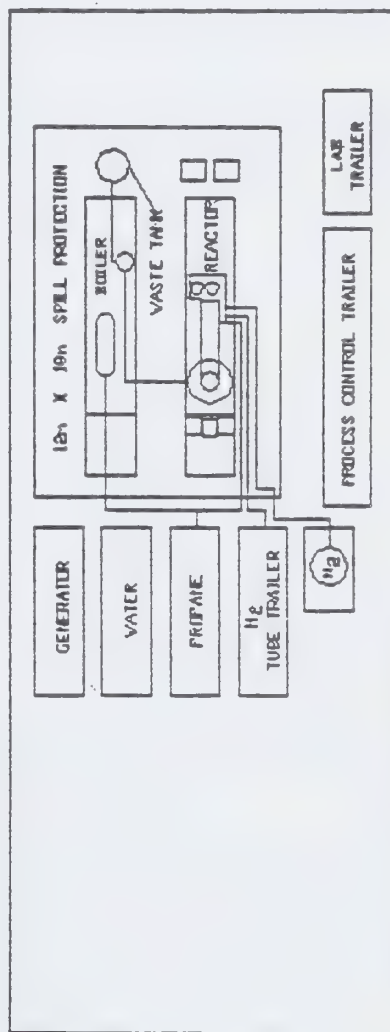


Jillian Daffern, M.Sc.

:jgd

Att. (4)

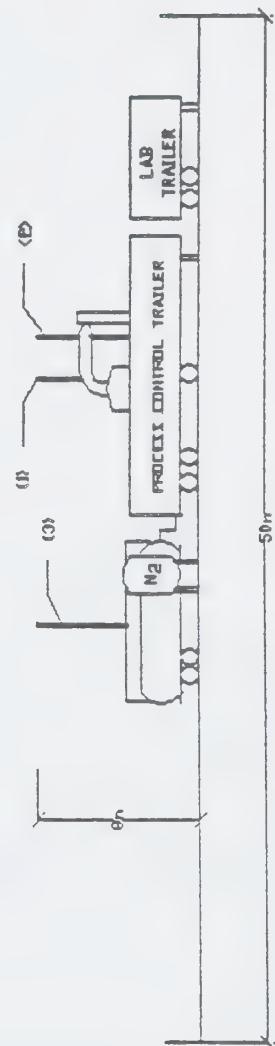
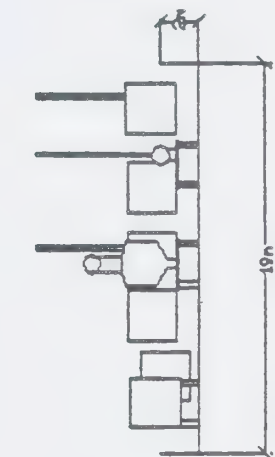
cc. Alderman B. Hinkley, attachments excluded
Alderman D. Drury, attachments excluded



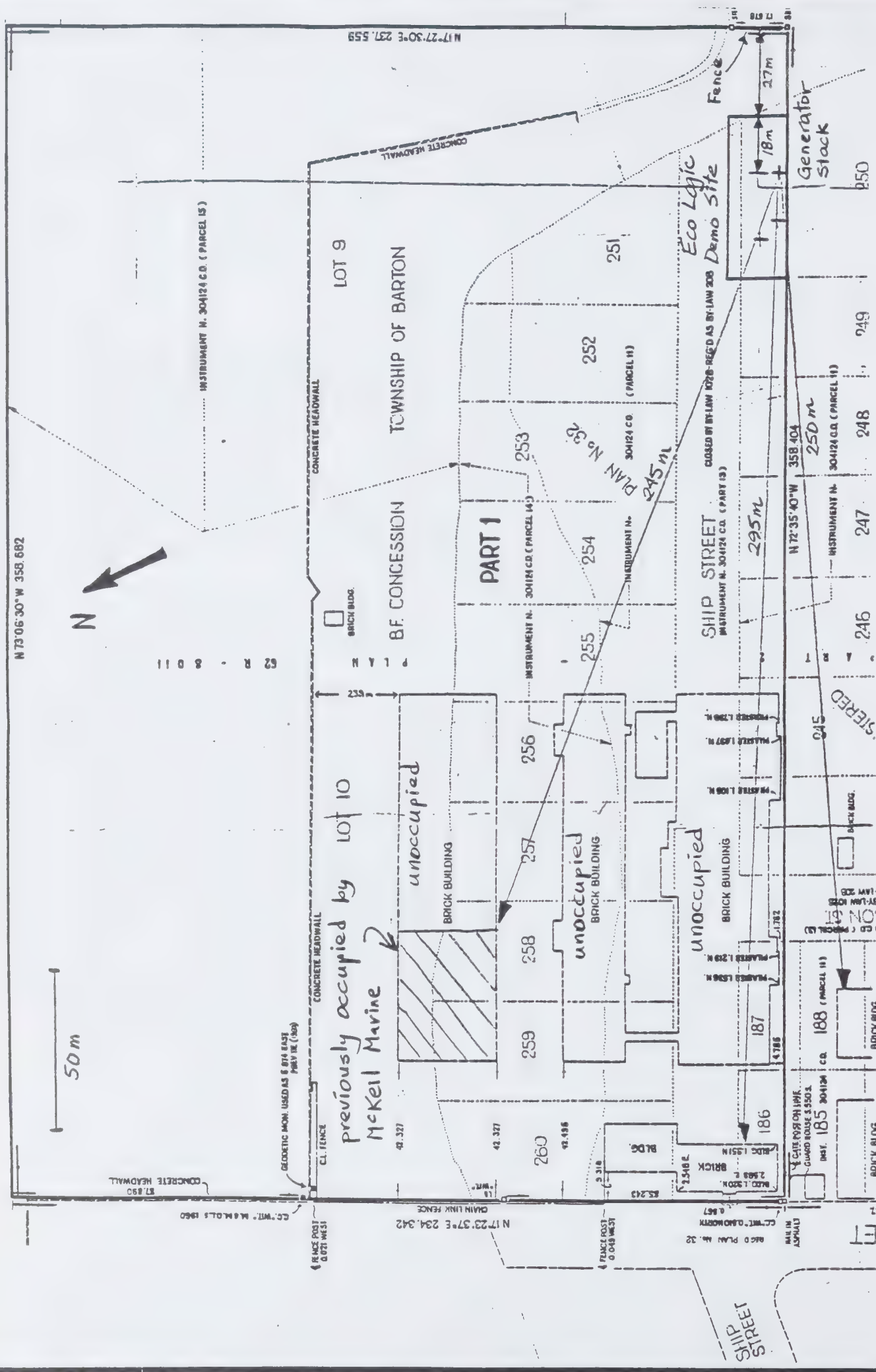
PERIMETER FENCE

NOTES:

- THERE ARE THREE STACKS ON SITE: (1) BOILER, (2) PROPANE BURNERS, (3) DIESEL GENERATOR. THE NEAREST CRITICAL RECEPTOR IS THE PROCESS CONTROL TRAILER.
- (1) - BOILER 31m x 0.8m 1 084 359 KJ/h PROPANE
- (2) - 2 BURNERS 10A: 0.10m 232 008 KJ/h PROPANE
- (3) - GENERATOR 10A: 0.15m 2 800 000 KJ/h DIESEL



ECD LOGIC	DLT ECD
LAYOUT DIAGRAM	DEMOCRATIZATION
DATE: 10/22/94	SITE PLAN
	SHEET 1 OF 1



258 Hysert Road,
Grimsby, Ontario,
L3M 4E7,

March 4th, 1991

3c.

Chairman's Advisory Committee
On Environmental Issues,
c/o Councillor John Prentice,
Regional Municipality of
Hamilton -Wentworth,
119 King Street West,
Hamilton, Ontario.
L8N 3V9

Dear Mr. Prentice and Committee Members.

I am writing to express my concern with the long period of time being taken by the Region, to produce positive action to prevent release of chlorofluorocarbons to the stratosphere. Authoritative reports in my possession indicate a 20% rise in skin cancer and a 40% rise in cataracts in Ontario from increased ULTRA VIOLET LIGHT DUE TO OZONE DEGRADATION.

The committee has been most receptive to my request for action and has spent a considerable time discussing the many aspects of this major threat to the economic well-being and health of all. However despite the praise due the committee for it's concern and interest, few results have been achieved to date. Some action within Regional Departments has been taken, notably the Street Railway, but Waste Management apparently still continues to vent CFCs from appliances being scrapped.

It is more than three years since I first requested the Regional Legislation Committee to ensure that only qualified workers handle refrigerants. On March 3rd 1989 I met with Chairman Whynott and former Councillor David Christopherson for over two hours. Enforcement of existing legislation, new legislation, or new regulations and procedures have not been forthcoming.

The present direction of the committee, to receive reports from the Health and Legal Departments and then to seek provincial enabling legislation will only delay effective action another three years. Unless Council becomes concerned enough to give the real leadership necessary to obtain immediate regulations, hundreds of area residents may suffer severe trauma from cataracts, cancer, and other health problems.

As R-12 and other refrigerants become unobtainable in the next few years many business persons will face expensive replacement of their cooling equipment. The CFC crisis will bring severe economic as well as health problems. It will be the end user, the consumer/taxpayer who will have to find the dollars for all the new equipment required in the conversion to substitute refrigerants. Has the committee's motion to delay purchase of air conditioners for the proposed new bus fleet been received or adopted by Council ?

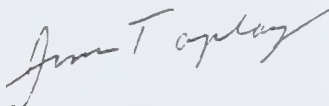
IF POLITICAL LEADERS ARE CONCERNED ABOUT "THE ENVIRONMENT", THEN WE NEED ACTION NOW TO DEAL WITH OZONE DESTRUCTION. There are many positive steps that can be taken within existing legislation if the political will is present.

I suggest that you obtain copies of the House of Commons Standing Committee on the Environment Report entitled DEADLY RELEASES CFCs for all members of the committee AND ALL COUNCIL MEMBERS. It states that if all "BANKED CFCs" were to be released, the Earth's OZONE SHIELD WOULD PROBABLY BE DESTROYED. Contrary to information given to this committee in the past, it also states that Municipal as well as Provincial and Federal legislation will be required.

I suggest too that a special committee be formed to ensure passage of regulations and legislation to take effect January 1, 1992. ALL LEVELS OF GOVERNMENT MUST ACT NOW OR IT WILL BE TOO LATE.

Australia has epidemic levels of skin cancer and cataracts. They have banned all manufacture of new equipment using R-12 refrigerant as of 1993. Will you ask the Hamilton-Wentworth Council to have legislation, regulations and enforcement procedures in place without delay ? A one pound can of R-12 will destroy twenty tons of liquid ozone. Can we afford to make less than our best effort to achieve zero venting of CFCs ? NO, WE MUST ACT NOW.

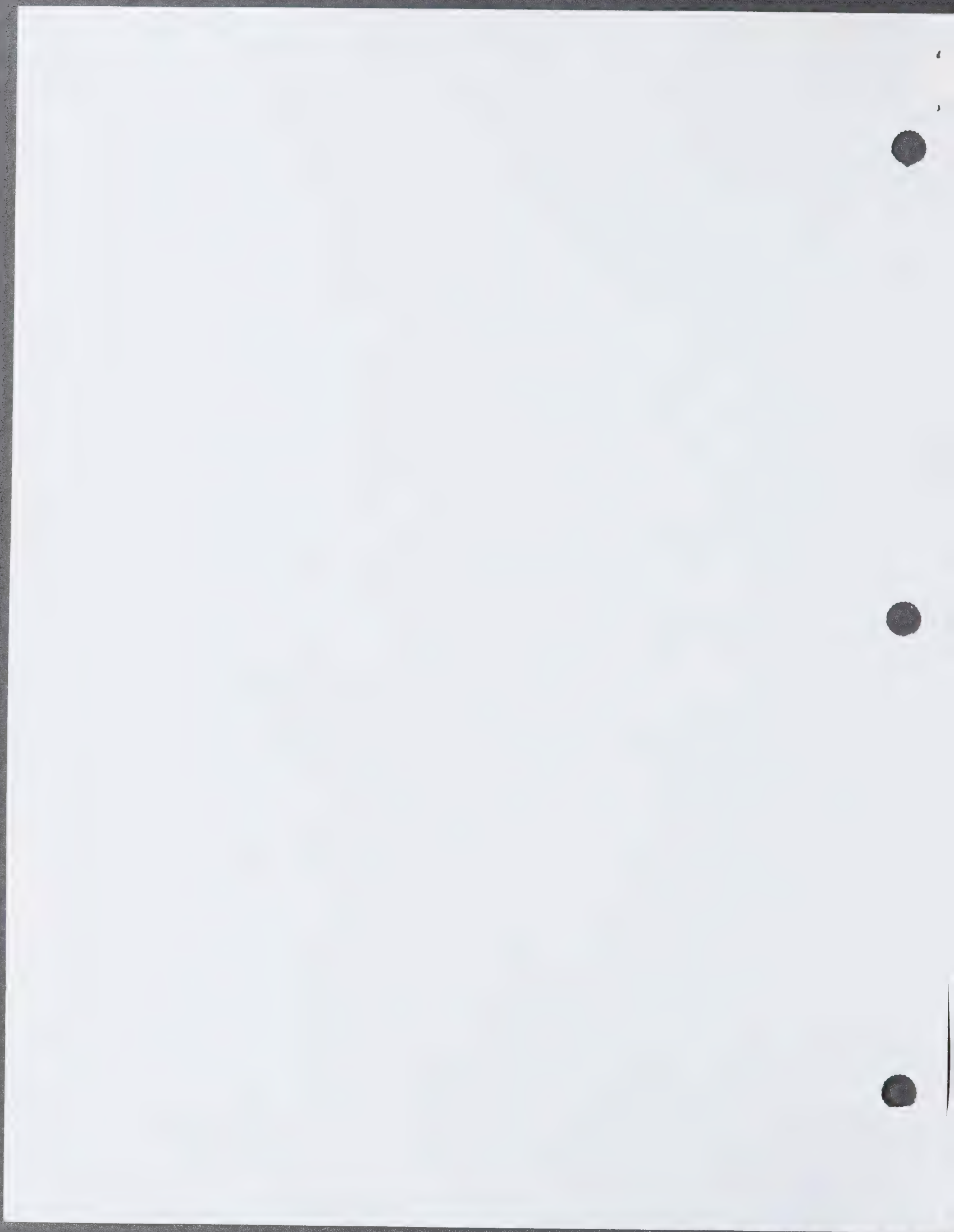
Yours sincerely,



Jim Taplay,
"ACT NOW"

c.c. Mr.K. Pidsadny

c.c. Chairman R. Whynott



**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, April 11, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - March 14, 1991

2. DELEGATIONS

- 2.1 Litter Problem - Duke St., Durand Neighbourhood - Hamilton
Ms. Margaret Walsh, citizen, to address this issue.

3. For the Information of the Committee

- a) Directory of Suppliers of Environmentally Sound Products and Services which was put together by the Toronto Purchasing Department, from Don Elder, Purchasing Department.
(Due to bulk, the directory is available for perusal in the Office of the Regional Clerk)
- b) Correspondence dated February 14, 1991, from the Minister of the Environment, Robert deCotret, re: "Environmental Achievement Awards" - recognizing the achievements and dedication of Canadians in protecting and restoring our environment.
- c) Correspondence dated April 3, 1991, from ECO-LOGIC, re: ECO-LOGIC Hazardous Waste Destruction Process update.

April 11/91

4. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon
October 12, 1990	Proposed Composter To Be Built In The Town Of Dundas	Tabled until delegation wishes to address issue
January 10, 1991	State of the Environment Report - 1990	Referred to the Sub-Committees of CACEI

5. ADJOURNMENT

1 b)

**MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m. on Thursday, March 14, 1991 in the Committee Room, 15th Floor, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillor B. Hinkley,
R. Baetz, Wm. Pedder, Prof. K. Murphy,
B. McHattie, B. Thompson,

Absent with Regrets: Councillor H. Merling - Another Commitment
G. Copps - Another Commitment
P. Muldoon - Another Commitment
G. Birchall - Another Commitment
B. Vanderbrug - Another Commitment
C. Katz - Another Commitment

Also Present: Dr. B. Gibson, P. Dunn, B. Goodger, R. Stewart, S. Galbraith,
J. Barnett, L. Mathews - M.O.E., Steve Isaak - Hamilton
General Hospital, G. Pizzio, P. King, K. Pidsadny

1. GENERAL

- a) **Declaration of Interest re: Municipal Conflict of Interest Act (None)**
- b) **Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - February 14, 1991**
(Thompson/Pedder) be received and adopted as presented. **CARRIED**

2. DELEGATION

2.1 Hospital Incinerators - Hamilton-Wentworth

Linda Mathews, Waste Management Branch, M.O.E., Toronto addressed committee members on hospital incinerators. Regulation 309 was highlighted, respecting biomedical waste, disposal of, and the C.C.M.E. definition of biomedical waste.

The definition of biomedical waste: defined waste that is generated by human or animal health care facilities, medical research and medical teaching establishments, laboratories and facilities involved in the production or testing of vaccines.

There are approximately eighty hospitals across Ontario that use incineration as a means of disposing waste.

A discussion took place and members requested that copies of the presentation be made available for their information.

2.2 Environmental Commitment Programme

(Baetz/Copps)

- a) That this be received;
- b) That staff revise the Terms of Reference for the Steering Committee, Regional Environmental Commitment Awards Programme (ECO 91-14) to include memberships from the Naturalist Club, Conserver Society, and Chamber of Commerce.

CARRIED

3. For the Information of the Committee

- a) Correspondence from Councillor B. Hinkley dated February 19, 1991, re: The Arts Community, The Environment, and Business.

(Baetz/Pedder)

That this item be referred to staff and that staff initiate with the Hamilton Arts Council, the feasibility of implementing a similar project in Hamilton-Wentworth that is being addressed in Vancouver, B.C.

CARRIED

- b) Correspondence from Eco-Logic, February 19, 1991, regarding Laboratory-Scale demonstration of Contaminated Harbour Sediment Treatment Process (Due to bulk, the information is available for perusal in the Regional Clerks Office)

(Baetz/Pedder)

That this be received.

CARRIED

- c) Correspondence from Mr. J. Taplay, March 4, 1991, re: chlorofluorocarbons

(Baetz/Pedder)

That this be received.

CARRIED

Note: Dr. Gibson advised members that a report and By-law should be complete for presentation to members at the April 1991 meeting.

(Murphy/Pedder)

- i) That the Region's purchasing policy be amended to ensure that any firm in contract with the Region to dispose of White Goods, i.e.: air conditioners, fridges, be required to adequately and properly dispose of CFC's that still remain in the product;

- ii) That the area municipalities be advised of Council's action and be encouraged to take similar initiatives.

CARRIED

New Business #1

State of the Environment 1990 - Response from the Water Quality Subcommittee

(Murphy/Hinkley)

- a) That the written response from the Water Quality Subcommittee to the State of the Environment Report 1990, be received;
- b) That these comments be referred to the Planning and Engineering Departments.

CARRIED

New Business #2

Correspondence from Mr. D. Tessarolo, Feb. 28, 1991, regarding an Information Package on Home Composting/Recycling

(Baetz/Hinkley)

- a) That this item be referred to the Solid Waste Subcommittee for perusal and comment;
- b) That a copy of this correspondence be forwarded to the Hamilton Home Builders Association for their information requesting the Association to consider addressing issues of "environmentally-friendly house plans" for newly designated homes or retrofitting existing homes.

CARRIED

Note: Mr. Dan Tessarolo will attend the April 11/91 meeting.

New Business #3

Proposed Composting Facility in Dundas, Ontario

(Copps/Hinkley)

- a) That the Engineering Department provide the draft Prospectus documents for the proposed Regional composting facility to the Solid Waste Subcommittee of the Chairman's Advisory Committee on Environmental Issues for evaluation and that their comments be referred back to the Engineering Services Committee prior to any commitment;
- b) That the Engineering Department forward the draft prospectus document to the Composting Subcommittee of WRAC (Waste Reduction Advisory Committee), an independent advisory body for review and comment, and that WRAC's comments be referred back to the Solid Waste Subcommittee and consultants, prior to action by the Engineering Services Committee.

CARRIED

4. ADJOURNMENT

On motion (Copps/Hinkley) the meeting adjourned at 12:05 p.m.

CARRIED

Chairman

Secretary

TREASURY DEPARTMENT

PURCHASING DIVISION

3.2)

TO: Mr. K. Pidsadny, Secretary
The Chairman's Committee on the Environment

Mr. J. Hindson, Chairman
Staff Environment Team

FROM: Don Elder, Purchasing

SUBJECT: DIRECTORY OF SUPPLIERS OF
ENVIRONMENTALLY SOUND PRODUCTS
AND SERVICES

DATE: 14 March 1991

Attached is the above-named directory which was put together by the Toronto Purchasing Department from material gathered by purchasing people from across Canada.

This copy is the first printing and does not contain information gathered from many areas including Hamilton-Wentworth.

The additions are being worked on now and will be available to us by June, they will be forwarded to you upon arrival.

If you have any questions regarding this directory, please feel free to call me at Ext. 3985.

Don

:pe
Att:

**Directory of Suppliers
of Environmentally Sound
Products and Services**



THIS DIRECTORY IS A JOINT EFFORT OF:

City of Calgary
City of Edmonton
City of Halifax
City of Montreal
City of Ottawa
City of Regina
City of Toronto
City of Winnipeg
Greater Vancouver Regional District
Metropolitan Toronto
Ontario Ministry of the Environment
Ontario Ministry of Government Services
Ottawa Board of Education
Regional Municipality of Hamilton-Wentworth
Toronto Harbour Commissioners

THIS DIRECTORY HAS BEEN PREPARED FOR THE CORPORATION OF THE CITY OF TORONTO AND OTHER PARTICIPATING CITIES AND AGENCIES. IT IS BEING DISTRIBUTED AT COST FOR INFORMATION PURPOSES ONLY. THE CORPORATION OF THE CITY OF TORONTO AND OTHER PARTICIPATING CITIES AND AGENCIES DO NOT GUARANTEE THE FINDINGS OF THIS DIRECTORY. THE CORPORATION OF THE CITY OF TORONTO AND OTHER PARTICIPATING CITIES AND AGENCIES NEITHER RECOMMEND THE USE OF THE FINDINGS IN THIS DIRECTORY NOR WILL ACCEPT RESPONSIBILITY FOR ANY LIABILITIES INCURRED CONSEQUENT TO USE OF THE FINDINGS OF THIS DIRECTORY.

SPECIAL NOTE:

FIRMS APPEARING IN THIS ENVIRONMENTAL DIRECTORY ASSUME ALL RESPONSIBILITY OF THE INTEGRITY OF THE INFORMATION PROVIDED.

Recipients of this Directory may wish to obtain from the listed suppliers, Material Safety Data Sheets (MSDS) where applicable for product suitability as covered by the WHMIS regulations.

The purpose of blank sheets appearing at the end of each section of this Directory is for future addendums and updates.

Activity Legend:

- | | |
|--------------------------|----------------|
| 1 - Manufacturer | 7 - Wholesaler |
| 2 - Manufacturer's Agent | 8 - Jobber |
| 3 - Service Business | 9 - Contractor |
| 4 - Distributor | |
| 5 - Dealer | |
| 6 - Retailer | |

JANUARY 1991

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RECEIVED FEB 22 1991

Ministre de l'Environnement

Minister of the Environment

36)

Le 14 février 1991

February 14, 1991

Madame, Monsieur,

Dear Sir/Madam:

De plus en plus de Canadiens se préoccupent de la qualité de l'environnement, notamment en raison de son influence sur leur santé et leur prospérité.

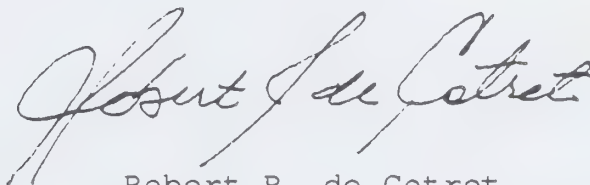
The quality of our environment continues to be of major concern to Canadians across the country.

Désireux de rendre hommage à des personnes qui se sont distinguées dans la protection et la restauration du milieu naturel, Environnement Canada décerne cette année encore des **prix d'excellence environnementale**.

Again this year, Environment Canada is offering **Environmental Achievement Awards** to honour Canadians from all walks of life who have made outstanding efforts to protect and restore the natural world on which our health and prosperity depend.

Je vous invite à nous faire parvenir vos mises en candidature.

I hope you will submit a nomination.



Robert R. de Cotret

The Environmental Achievements Awards

*Recognizing the achievements
and dedication of Canadians
in protecting and
restoring our environment*



CANADA'S GREEN PLAN

A key element in Canada's Green Plan, released last December, is the concept of partnership: the need for Canadians in every sector of society to work co-operatively toward the common goal of a cleaner, healthier environment.

The Environmental Achievement Awards celebrate that concept. The awards honour the efforts and commitment of individuals and organizations from all walks of life who work, through diverse but mutually reinforcing actions, to protect and restore our environment.

Nominations are invited in a wide range of categories. People and organizations nominated in previous years, and not chosen as award-winners, may be nominated again. An independent advisory body, the Canadian Environmental Advisory Council, will select the winners.

The 1991 awards ceremony will take place during Environment Week, June 2-8. Please join us in recognizing the men and women who make Canada - and the world - a better place in which to live.

Robert R. de Colnet
Minister of the Environment

Categories

Environmental Achievement Awards will be presented in six categories:

1 Non-profit Organization

This award is for a non-government, non-profit group that has made an outstanding contribution to the protection of Canada's environment. The contribution may be a long-term, ongoing effort or a single, recent accomplishment. It may take the form of increased public awareness or the promoting of a particular cause.

Eligibility: Any Canadian organization, or Canadian branch of an international organization, that is a non-government, non-profit group and that (a) focuses on conservation, wildlife, energy issues, toxic chemicals, or any other concern central to improved environmental quality, or (b) has developed a program that deals with an environment-related topic.

The 1990 award-winner was Ducks Unlimited Canada for its longstanding work to preserve wetlands and for its new Prairie Care Program.

2 Outstanding Communications for Environmental Awareness

This award is for an author, journalist, broadcaster or film-maker who is a Canadian resident and whose work has significantly broadened Canadians' awareness of environmental issues. The award-winner will have contributed to increased knowledge, concern, commitment and/or hope for the environment.

Eligibility: This category is open to a professional communicator in any medium.

The 1990 award-winner was David Suzuki, for excellence in a range of environmental communications.

3 Corporate Environmental Leadership

This award recognizes innovative and/or exemplary environmental conduct by a Canadian corporation, institution or association - industrial or other. The winner will have shown that environmental concerns can be reflected in economic decisions, as urged by the World Commission on Environment and Development, and by Canada's Task Force on Environment and Economy.

Eligibility: The nominee must be a corporate entity (not a municipality or charitable organization). Crown corporations are also eligible. The nomination should identify how the company in question has protected the environment or conserved natural resources.

The 1990 award-winner was Laminage Perma Ltée, for manufacturing a high-quality product with minimal impact on the environment.

4 Lifetime Achievement

This award is given to an individual Canadian whose lifetime dedication to the environment is a source of inspiration.

Eligibility: Any individual Canadian. The nomination should describe the person's work, focusing on his or her motivation and scope of activity. Both successes and failures should be cited.

The 1990 award-winner was Dr. Andrew Thompson for his lifetime work as a champion of environmental protection.

5 Environmental Leadership by a Municipality

This award recognizes an innovative and/or exemplary environmental policy, project or activity of a municipality.

Eligibility: Any Canadian regional government or municipality. The nomination should outline the type of policy, project or activity and identify the benefits to the environment.

The 1990 award-winner was the Regional Municipality of Sudbury for its environmental rehabilitation project.

6 Environmental Science Fair Project

Environment Canada works with the Youth Science Foundation to select the best environment-related science fair project across the country. Nominations are, therefore, not required for this category.

The 1990 award-winners were Sandra Imbeault and Pascale Charest, two high-school students from Matane, Quebec, for a project on recycling disposable diapers.

Deadline for Submitting Nominations

Nominations must be postmarked on or before March 22, 1991.

Acknowledgment of Nominations

An acknowledgment will be sent to everyone who submits a nomination form.

Further Information

Environment Canada appreciates your interest in the conservation and protection of the environment. We encourage you to make copies of this material and send them to other interested organizations.

Please send nomination forms and requests for additional information to:

Enquiry Centre
Environment Canada
6th Floor
Place Vincent Massey
351 St. Joseph Avenue
Hull, Quebec
K1A 0H3

Nomination Form for Environmental Achievement Awards

I wish to nominate:

Name _____
Organization _____
Address _____
Telephone _____

Category

- ☐ Non-profit Organization
☐ Corporate
☐ Municipality
- ☐ Communications
☐ Lifetime Achievement

Why I think

deserves the Environmental Achievement Award (200 words or less; please use a separate page).

Nominators are free to enclose additional materials (newspaper clippings, letters of support, magazine articles, photographs, etc.).

This nomination submitted by:

Name _____
Organization _____
Address _____
Telephone _____
Relationship to Nominee _____

Think Recycling!



Formulaire de mise en candidature pour les prix d'excellence environnementale

Je désire proposer

Nom _____
Organisme _____
Adresse _____
Téléphone _____

Catégorie

- ☐ Organisme sans but lucratif
☐ Entreprise
☐ Municipalité
- ☐ Communication
☐ Oeuvre écologique

Je crois que

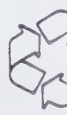
le prix d'excellence environnementale pour les raisons suivantes (maximum de 200 mots; s'il vous plaît utiliser une feuille séparée).

Toute mise en candidature peut s'accompagner d'autres documents (coupures de presse, lettres, articles, photographies, etc.).

Le candidat est proposé par

Nom _____
Organisme _____
Adresse _____
Téléphone _____
Relation avec le candidat _____

Pensez à recycler!



3c.)

ECO LOGIC

April 3, 1991

Mr. Robert Prouse, Clerk
Regional Municipality of Hamilton-Wentworth
Regional Clerk's Office
15th Floor, 119 King Street West
P.O. Box 910
Hamilton, Ontario
L8N 3V9

Re: ECO LOGIC Hazardous Waste Destruction Process

Dear Mr. Prouse,

ECO LOGIC is preparing to undertake a demonstration program of our pilot-scale hazardous waste destructor which is sited on part of lot 9 in the Township of Barton, near Hillyard and Burlington Streets, Hamilton. Area maps and a site plan are appended. Lots 9 and 10 are owned by the Hamilton Harbour Commissioners which has granted ECO LOGIC use of the lands gratis until June 1991. The area is presently used for low-density, commercial-marine operations. Surrounding land uses are also currently low-density industrial/commercial.

The ECO LOGIC destructor is sited on federal lands and will treat contaminated sediments from federal waters. Financial support has been granted in part by the Department of National Defence, Environment Canada and Environment Ontario (MOE). Consequently, ECO LOGIC's program is under federal jurisdiction and we are fulfilling federal (e.g. the Environmental Assessment and Review Process and Canadian Environmental Assessment Act) and provincial (e.g. Environmental Protection Act and Ontario Water Resources Act) requirements.

ECO LOGIC also intends to comply with all applicable municipal by-laws and regulations regarding noise emissions and liquid discharges. A letter confirming a conversation between Ms. Jillian Daffern, M.Sc., of ECO LOGIC and Mr. Jim Halliday of the Woodward Avenue Sewage Treatment Plant will be forwarded forthwith. All liquid effluents will be stored on-site until bulk analysis is

.... /2

ECO LOGIC

Mr. Robert Prouse, Clerk

Page 2

complete and results are communicated to Mr. Halliday. If approval is granted, liquid wastes will be discharged to the Woodward Avenue Sewage Treatment Plant. Alternatively, liquid wastes will be removed and treated appropriately by an approved hazardous waste hauler. Grit residues will be analysed and may be retained for further research into the potential for metals recovery by the Wastewater Technology Centre in Burlington.

ECO LOGIC has duly informed Messrs. D. Drury and B. Hinkley, Aldermen, Ward 3, Hamilton; Mr. T. Whitehead, assistant to Mr. D. Christopherson, MPP Hamilton Centre; and Ms. S. Copps, MP Hamilton East of the project and our timetable. All their concerns communicated to us have been addressed and answered.

ECO LOGIC made a presentation to the Hamilton Remedial Action Plan (RAP) Writing Team on November 13, 1990 and to the Public Advisory Committee stakeholders group on March 18, 1991. Brief descriptions of our project and sediment removal program were distributed at these meetings and are attached for your files. Mr. Craig McEwen, P.Eng. and Ms. Daffern addressed the Chairman's Advisory Committee on Environmental Issues, Regional Municipality of Hamilton Wentworth, on December 13, 1990. Further to this presentation, a copy of our draft report "Lab-Scale Demonstration of Contaminated Harbour Sediment Treatment Process" and of our "Data Quality Assurance and Monitoring Plan" were forwarded to Mr. Ken Pidsadny, Secretary to the Committee, on February 19, 1991, as requested.

The report details the results from ECO LOGIC's program of ten characterization and destruction tests of hazardous sediment samples from Hamilton, Sheboygan and Thunder Bay harbours using our laboratory model. The program was completed under contract with the Wastewater Technology Centre in Burlington. Our analytical protocols were scrutinized, selected destruction runs were audited and some samples were split-analysed by Environment Canada. The draft report includes all ECO LOGIC data; Environment Canada data is not yet available. Environment Canada data and the final report will be forwarded subsequently.

.... /3

ECO LOGIC

Mr. Robert Prouse, Clerk

Page 3

We feel that these results with real harbour sediments prove reliable, good destruction efficiencies which support our application to further test our unit at the pilot scale. We expect even better results at the pilot-scale due to better heat transfer and inlet control at the larger model.

Copies of Certificates of Approval from Environment Ontario to operate a diesel generator, a propane boiler and two propane-fired, recirculation-gas heaters during integrity testing are attached. This phase of on-site research will commence, as approved by the Department of National Defence and Environment Canada, during the second week of April, 1991. The time estimated to complete integrity testing is one week.

Environment Canada is committed to carrying out a demonstration project with the pilot-scale unit and actual waste sediments if this research successfully proves the integrity of the gas-phase reduction process and equipment performance. A small volume (approximately 12 cubic metres) of sediment will be removed off the northeast corner of Pier 15 during the morning of April 5, 1991, under the auspices of Environment Canada. A silt curtain will be installed April 4, 1991 and removed April 8, 1991, depending on weather and water quality conditions, to ensure protection in the event of any sediment resuspension. All identified interested parties have been notified and approve of this timetable, including Mr. Hugh Eisler of Stelco, Inc. Characterization and performance testing using Hamilton Harbour sediment are expected to take ten weeks, commencing in mid-April, 1991.

During the sediment destruction phase, ninety-five percent of the waste gases will be recirculated to the reactor vessel and serve as a source of hydrogen. This will reduce our consumption of externally supplied reaction gas. Five percent of the waste gases will be recirculated to the boiler as a secondary fuel to preheat the waste feed. ECO LOGIC has applied for an amendment to the Air Certificate in order to operate the propane boiler as a propane/waste-gas boiler during this phase. Once approval has been received, a copy of the amended certificate will be forwarded to your office.

.... /4

ECO LOGIC

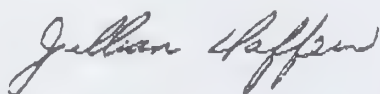
Mr. Robert Prouse, Clerk

Page 4

Attached is a copy of our general liability insurance coverage. ECO LOGIC carries the maximum level of insurance available. We will institute a health and safety plan and a monitoring plan for this test program. All safety inspections will be completed prior to integrity testing. In addition to stack-gas monitoring using MOE approved Modified Method 5, continuous real-time monitoring will be provided by a Chemical Ionization Mass Spectrometer (CIMS) linked to a process controller. Test and monitoring results will be readily available.

ECO LOGIC is a wholly Canadian company that consists of two operating companies: ELI ECO LOGIC INTERNATIONAL INC., and ELI ECO TECHNOLOGIES INC. The two companies were incorporated in 1986. The Company is 80 percent owned by myself, as President, and my family, and 20 percent is owned by company principals. The General Manager of ELI ECO TECHNOLOGIES INC. is Mr. Kelvin Campbell, P.Eng. Mr. Campbell and Mr. McEwen will be responsible for all on-site activities.

Respectfully submitted,



for Douglas J. Hallett
President

cc. Mr. Keith Avery, Clerk, City of Hamilton

att. (6)

URBAN/MUNICIPAL
CA3 ON HW ACOS
A35E
1991

**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, May 9, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

URBAN MUNICIPAL
MAY 28 1991
GOVERNMENT DOCUMENTS

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of Chairman's Advisory Committee on Environmental Issues
Committee Meeting - April 11, 1991

2. DELEGATIONS

- 2.1 Ollie Thomson - Chairman of Environmental Issues Committee, Chamber of
Commerce, Hamilton

(Note:) Committee requested that members of the Chamber of Commerce,
Hamilton, Environmental Subcommittee, be invited to discuss their
programme with the Regional Advisory Committee.

- 2.2 Correspondence from Dr. P. Boldrini, Ecosystem Approach Group, requesting
support of their goals.

Dr. P. Boldrini, Ecosystem Approach Group to address this issue.

(Note:) Due to bulk the Petition is available in the Office of the Regional
Clerk for perusal.

**Chairman's Advisory Committee
on Environmental Issues**

Agenda

May 9, 1991

3. BUSINESS ITEMS

3.1 Control of Ozone-Depleting Substances (HEA 91-035)

To be addressed by Dr. B. Gibson - Health Department and B. Loreto - Legal Services. (Note:) Report attached under separate cover.

3.2 Environmental Sensitive Area - Development Study 1990

For the committee's review and comment. (Note:) Due to Bulk, the Study is available in the Office of the Regional Clerk for perusal.

4. For the Information of the Committee:

- a) Correspondence from Ministry of the Environment, Waste Management Branch, dated April 8, 1991 - follow up to March 14, 1991 presentation
- b) Correspondence dated April 22, 1991, regarding Marsh, King St. E. and Olympic Drive, Dundas, adjacent to the proposed composter unit from Liz Crozier-Organ
- c) Correspondence sent to the Regional Chairman re: Environmental Awareness

5. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution

**Chairman's Advisory Committee
on Environmental Issues**

Agenda

May 9, 1991

Date	Subject	Referred to:
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon

5. ADJOURNMENT

1b.

**MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m. on Thursday, April 11, 1991 in the Committee Room, 15th Floor, Regional Offices.

Present: Chairman (Councillor) J. Prentice
R. Baetz, Wm. Pedder, Prof. K. Murphy,
G. Birchall, B. Vanderbrug, C. Katz

Absent with Regrets: Councillor H. Merling - Vacation
Councillor B. Hinkley - Illness
Councillor G. Copps - Another Commitment
B. McHattie, P. Muldoon, B. Thompson,

Also Present: R. Stewart - M.O.E., J. Halliday, J. Barnett, B. Goodger,
W. M. Carson, P. Dunn, M. Gibbs - M.O.E. Complaint Dep't.,
K. Pidsadny

1. GENERAL

- a) **Declaration of Interest re: Municipal Conflict of Interest Act (None)**
- b) **Minutes of Chairman's Advisory Committee on Environmental Issues Committee Meeting - March 14, 1991**
(Pedder/Katz) be received and adopted as presented. **CARRIED**

Note: Prof. K. Murphy requested that it be noted that the Region of Halton currently is undertaking ground water sample testing.

2. DELEGATION

2.1 Litter Problem - Duke St., Durand Neighbourhood - Hamilton

Ms. Margaret Walsh addressed committee members on the issue of the litter in the Durand neighbourhood. Ms. Walsh has already expressed her concerns at the City of Hamilton's "Keep Hamilton Clean Committee".

R. Baetz suggested that the Conserver Society is always looking for citizens to establish chapters throughout the city as done in neighbouring municipalities.

Mr. Vanderbrug suggested a central cleaning house with secretariat, besides the Regional Environmental Office.

Chairman's Advisory Committee
On Environmental Issues

Minutes

April 11, 1991

(Murphy/Baetz)

That on behalf of the committee, Mr. B. Vanderbrug convene a meeting of local groups in the community to determine a need for a central secretariat office to address the issue of establishing citizen input/programmes on litter concerns in local neighbourhoods.

CARRIED

* Staff will report back on enforcement by-laws pertaining to litter.

3. For the Information of the Committee

(Katz/Pedder)

That the following items be received:

- a) Directory of Suppliers of Environmentally Sound Products and Services which was put together by the Toronto Purchasing Department, from Don Elder, Purchasing Department.
(Due to bulk, the directory is available for perusal in the Office of the Regional Clerk.)
- b) Correspondence dated February 14, 1991, from the Minister of the Environment, Robert deCotret, re: "Environmental Achievement Awards" - recognizing the achievements and dedication of Canadians in protecting and restoring our environment.
- c) Correspondence dated April 3, 1991, from ECO-LOGIC, re: ECO-LOGIC Hazardous Waste Destruction Process update.

CARRIED

New Business #1

Correspondence from Ollie Thomson, President, Environment Subcommittee, Chamber of Commerce - dated March 26, 1991

(Murphy/Vanderbrug)

That the correspondence be received as information.

CARRIED

New Business #2

State of the Environment Report - response by Solid Waste Subcommittee

(Baetz/Murphy)

That this report by the Solid Waste Subcommittee, dated April 11, 1991, State of the Environment Report, be referred to the Planning and Engineering staff. **CARRIED**

New Business #3

Foam Plastic Cups - Report by Solid Waste Subcommittee, April 11, 1991

This item will be presented at the next meeting of May 9, 1991. Members requested feedback from Mr. T. Bradley - Purchasing Department, on the city's stand regarding the issue of purchasing re-usable glass cups, versus disposable cups.

New Business #4

Separation of Residential and Office Waste - Solid Waste Subcommittee, April 11, 1991

(Baetz/Pedder)

That this be referred to Engineering - Solid Waste Division, for staff perusal and comment. **CARRIED**

New Business #5

Jim Halliday will bring a report back on Drum Washing Facilities in the Regional Municipality of Hamilton-Wentworth, for the next meeting.

4. **ADJOURNMENT**

On motion (Katz/Birchall) the meeting adjourned at 10:30 a.m.

CARRIED

Chairman

Secretary



CACEI'S MEETING
NB#

2.1

APR 9 9:24

March 26, 1991

Mr. John Prentice
Chairman
Environment Committee
Region of Hamilton-Wentworth
119 King Street West
Hamilton, Ontario
L8P 4T7

Dear Mr. Prentice:

I would like to advise you and your Committee that the Chamber now has an Environment Committee, made up of prominent business people in different sectors of the economy who will be working on behalf of the Chamber on various related programs, under the Chairmanship of Ollie Thomson, President, About Town Events & Meeting Planners.

I have attached a list of members for your interest and if we can be of any assistance to your committee, please don't hesitate to contact us.

Sincerely,

Kathy Drewitt
Director of Policy

KD:tp

Attach.

ENVIRONMENT SUBCOMMITTEE
1990 - 91

Chairman	Ollie Thomson President About Town Event & Meeting Planners
Vice-Chair	Doug McLean President Doromco Limited
	Sandy Adam Vice President & Works Manager Hilton Works, Stelco
	R. Anthony Gorman President Stellarc Recycling Ltd.
	Christel Kaiser-Farrell Environmental Officer McMaster University
	Heng Lem Special Projects Manager Hotz & Sons Inc.
	Janice Locke Senior Manager Audit/Financial Services Price Waterhouse
	Jacqueline McNeilly Community Development Department City of Hamilton
	Hanna Nyman President Roto-Pro Services Inc.
	John Priestner Projects Manager Philip Environmental Ltd.
	Michelle Simmons National Training Manager Head office Environment Committee Wendy's Restaurants
	John Rocchi President Stellarc Recycling Ltd.

RECEIVED

2.2

Dr. P. BOLDRINI
Environmental Chemist
(416) 549-6319

91 Gibson
Hamilton
L8L 6J9

Reg Whynott
Regional Chairman
Regional Municipality of Hamilton-Wentworth
Hamilton

Tue, Apr 16, 1991

Dear Mr. Whynott,

On behalf of the Ecosystem Approach Group, I would like to ask for your support to the included petition, whose goals are framed on the cover page.

This region is going to be highly affected by the Ont. Hydro environmental hearing. That is the reason why I hope you will take position, by passing the petition to the appropriate committee.

Looking forward to hearing from you, I thank in advance. With best regards.

Sincerely,



P. Boldrini
Executive Director
Ecosystem Approach Group



THE REGIONAL MUNICIPALITY
OF HAMILTON - WENTWORTH

Office of the Chairman

APR 19 11:24

April 18, 1991

Dr. Paul Boldrini
Executive Director
Ecosystem Approach Group
91 Gibson Avenue
Hamilton, Ontario
L8L 6J9

Dear Dr. Boldrini:

I am in receipt of your letter dated April 16 and the enclosed petition to the Provincial Government and I thank you for writing.

As requested, I have forwarded your package to the Region's Environmental Issues Sub-Committee for its members' consideration and recommendation.

I'm confident you'll receive a response from the Region in the near future.

Sincerely,

R.J. (Reg) Whynott
Regional Chairman

cc: Mr. K. Pidsadny
Secretary
Environmental Issues Sub-Committee

P E T I T I O N

PREMIER OF ONTARIO

The Ecosystem Approach Group (EAG) petitions the Ontario government:

- to implement the Porter plan;
- to investigate the extravagances of the EAB;
- to disband the Ontario Hydro's environmental hearing;
- to submit to environmental assessment this government's energy plan;
- to quantify the Ontario ecosystem and apply the ecosystem approach.

ECOSYSTEM APPROACH GROUP

P. Boldrini
91 Gibson Ave., Hamilton, Ont. L8L 6J9; (416) 549 6319
April 16, 1991

P E T I T I O N

- 79 of the 88 recommendations of the Porter plan for electricity (the first Ontario-wide study: 1983-1993 and beyond) were not implemented by past governments and are now used by intervenors to obtain an initial \$25 million from Hydro. Shouldn't the present Ontario government carry out the current Porter plan first, before asking for the recommendations from the next plan?

- By presenting its Demand Supply Plan (DSP), Ontario Hydro is covering up its own failure to carry out the current Porter plan. The four volume, two million dollar DSP documentation is filled with errors.

- The Ontario Hydro environmental assessment hearing has the wrong mandate. Instead of considering how to increase electric power production, it should ascertain how to keep consumption under control. Sustainable development and the ecosystem approach are mandatory steps to achieve the latter. Since both seem to be goals of this government, shouldn't they also be consistent with the Hydro hearing?

- The Hydro hearing was kept in the hands of the wrong Board and funding panel. The latter granted funds (App.H) in an extravagant and arbitrary way for:

- an expert at \$(600+150)/hour;
- 2000 packages of photocopying paper;
- a case manager at \$224.415/year for two years;
- a research director at \$195,300/year for two years;
- 36 lawyers, some of them without issues to present;
- an intervenor was awarded 14% more than requested;
- another was granted 53.1% for lawyer, 16.64% for printing, 15.13% each for typing and photocopying expenses.

What sort of advice will the Board give to this government, when two members do not possess any experience in environmental assessment? Before starting the true hearing, is it not wiser to appoint a more competent Board?

- The government should submit its own energy policy plan to environmental assessment and stop this extravagant environmental hearing which squanders millions of dollars.

- The population of Ontario and the provincial government should qualify and quantify the Ontario ecosystem through its six bioregions. This is a sensible and profitable way to account for the present and future structure and functions of the entire province, including its energy policy. The ecosystem approach is the most powerful pathways to understand the evolutionary life of Ontario.

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- B. The Porter plan on electric power in Ontario
- C. The demand/supply plan (DSP) of Ontario Hydro
- D. Ecosystem approach to the Ontario Hydro plan
- E. The Board of the of Ontario Hydro hearing
- F. "New" or "old" environmental rhetoric in Ontario
- G. Conserving power or wasting time?
- H. Intervenor funding: a great hoax!
- I. Comments to Part 1 by C.G.Hunt, Editor, Electricity Today
- L. MOE falsification, EAB perversion or both?
- M. List of supporters

Abbreviations

AECL	= Atomic Energy of Canada Ltd.
Board	= E. Saunders, G. E. Connell, G. Patterson
CNA	= Canadian Nuclear Association
DSP	= Demand/Supply Plan (plan # 2) of Ont. Hydro
EA	= Environmental Assessment
EAB	= Environmental Assessment Board
EAG	= Ecosystem Approach Group
Funding panel	= Mary G. Munro
IPPSO	= Independent Power Producers Society of Ontario
IFPA	= Intervenor Funding Project Act
MOE	= Ontario Ministry of the Environment
OEB	= Ontario Energy Board
OWMC	= Ontario Waste Management Corporation
Porter plan	= The first demand/supply plan of Ont. Hydro
OPHA/IICPH	= Ontario Public Health Association/International Institute of Concern for Public Health

RECEIVED APR 22 1991

THE REGION OF HAMILTON-WENTWORTH

MEMORANDUM

TO: Mr. R.J. Whynott
Regional Chairman

FROM: Ramona Dechert
Administrative Co-Ordinator
Legal Services Department

PHONE: 546-4344

SUBJECT: ENVIRONMENTAL AWARENESS

DATE: April 22, 1991

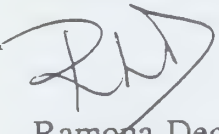
I recently attended the annual conference of the Association of Legal Administrators and attended a session on environmental awareness. This session was of particular interest to me because of both the Corporation's and the Legal Services Department's initiatives to be environmentally conscious in our day to day operations.

Although the attached material from the session is entitled "Environmental Awareness in Law Office Practices", the information can be applied to any organization. It takes a common sense approach to the issue and addresses attitudinal change in an office setting.

A survey of session attenders was taken and it was found that the majority of law firm/department representatives at the session have already taken the lead in this area. Our Department was right up there with the following initiatives: fine paper recycling, can and bottle recycling, newspaper recycling, elimination of disposable cups (all thanks to Debbie Edwards, Assistant Corporate Counsel), and reduced paper usage through circulation and use of bulletin boards as a substitution for mass memo distribution.

Legal offices are by nature very paper intensive. It is very gratifying to know that our efforts are equal to and even surpass many other legal organizations, including private firms, corporate law departments and other government legal departments.

The session was beneficial in that it reinforced the usefulness of our existing practices and provided me with new ideas to present to the Department Management Team. I hope that this information may be of use to you as well and to the Task Force which you have established for this purpose.


Ramona Dechert

c.c.: Rand Roszell, Commisioner, Legal Services

Environmental Awareness
Wednesday, 4/17/91 8:00 -9:30a
Joseph Manko, Jonathan Rinde

Environmental Awareness In Law Office Practices

Bruce S. Katcher, Esquire
Jonathan E. Rinde, Esquire

Manko, Gold & Katcher
401 City Avenue
Bala Cynwyd, PA 19004
(215) 660-5700

I. INTRODUCTION

A. Waste generated by law offices

- An average attorney generates up to one ton of paper each year.
- Law offices also typically dispose of styrofoam food and beverage containers, aluminum cans and assorted plastics.

B. Law offices are major purchasers of office products such as writing and copy paper.

C. Law offices can become environmentally aware by adopting "green" office practices, following the three R's of waste awareness.

1. REDUCE the amount of waste produced.
2. REUSE materials as many times as possible.
3. RECYCLE the waste that is produced.

II. REDUCING WASTE

A. Largest potential reduction of waste paper involves photocopier use. Some ways to reduce paper waste from photocopiers are:

1. Photocopy on both sides of the paper.
2. Use the reduction feature.
3. Cut full sheets in half for short memos.
4. Have visual reminders next to photocopiers to reinforce proper use.

B. Eliminate certain photocopying altogether by using the following methods:

1. Bulletin boards which display information for office-wide distribution.
2. Telephone and computer systems may be capable of storing voice mail and electronic mail, rather than using written memos.
3. One copy of "For Your Information" documents can be circulated, instead of distributing mass photocopies.
4. Dictation also reduces paper waste.
5. Skimming materials prior to photocopying also reduces the number of photocopies made.

C. Other ways to reduce law office waste.

1. Use ceramic mugs instead of disposable cups.
2. Use china plates and glasses instead of paper or plastic equivalents.
3. Use refillable pens and pencils instead of disposables.
4. For law offices owning their own buildings, lighting and HVAC systems can be evaluated to reduce energy consumption.

III. REUSE OF WASTE MATERIALS

A. Use both sides of all stationary, writing and copy paper before recycling.

1. Use the reverse side of all paper for note-taking, memo drafting, etc.
2. Using both sides of bond paper in draft printers.

B. Old file folders and other office materials to be discarded can be donated to underfunded public law offices if they are still serviceable.

1. Typically, these offices are in need of manilla file folders, Redwells, dictation equipment, file cabinets, desks, chairs, etc.
2. Donations to a non-profit organization may be tax deductible.

C. Purchasing recycled products.

1. "Green consumerism".
2. Buying recycled paper products "closes the loop" on the paper waste stream.
3. No standard federal definition to the term "recycled paper".
4. An important characteristic of recycled paper is its percentage of post-consumer waste, which is the paper discarded by homes and offices that would have been burned or buried if it were not recycled.
5. Recycled paper can be used for all law office purposes including letterhead and bond stationery, copy paper, computer printer paper, note pads, business cards, etc.
6. Recycled paper itself can then be recycled after use.

D. Color of paper.

1. Yellow legal pads have been a fixture in law offices.
2. White paper requires less processing to recycle than colored paper.
3. However, white paper typically is bleached through the use of chlorine, which produces environmental harm.
4. Unbleached paper may not be acceptable to lawyers and clients.

photocopy paper, computer paper and windowless envelopes.

2. High grade office paper does not include coated papers, such as magazines and newsprint, and fax paper.
3. The small amount of impurities typically associated with high grade office paper waste, such as paper clips and staples, are expected and are removed during the recycling process.

E. Steps to implement a source separation paper recycling program.

1. Get approval or consent from the appropriate levels of management.
 - Approval of a recycling program by the leaders of the law office conveys the message that recycling is important.
 - Discuss the recycling program with the appropriate non-legal staff, such as the copy center supervisor. Their full cooperation will be needed for a successful program.
2. Conduct a waste audit.
 - A waste audit evaluates the composition and volume of the existing waste, and identifies where the waste is generated, how it is collected and disposed, and the cost of the entire process. The waste audit will identify how much and what type of material can be recycled, and the best collection method.
 - As mentioned above, it has been estimated the average office worker generated .51 lbs. of recyclable paper per day. This multiplier will result in a low range estimate of recyclable paper generated in a law office.
3. Contact and select a recycling vendor.
 - A recycling vendor will pick up your recyclables and process them for further use in manufacturing.

- If your office generates a large volume of recyclables, the recycling vendor may contract with you and pay you for the recyclables. For small quantity generators, the recycling vendor may instead provide free pick up service.
 - Non-profit organizations may also provide free pick up service for recyclables that are donated to it.
4. Develop a collection and storage system for the types and amounts of recyclables your office generates.
- For a source separation system, a small trash container or any type of file organizer is suitable to store recyclables at each desk. A recycling logo or other identifier should be printed on it.
 - The recycling vendor may be able to assist you in securing containers.
 - A centralized container is typically needed for every fifteen to twenty employees.
 - Additional recycling containers should be placed near copy machines and computer printers, or where relatively high volumes of waste paper is generated.
5. Get the word out!
- Publicize the start of your recycling program throughout the office.
 - For some offices, designating recycling coordinators to teach those in their area about the program was successful.
6. Implement the recycling program.
7. Monitor and follow-up.
- Make sure any problems in the system are corrected immediately.
 - Additional incentives to recycle are often provided by issuing periodic progress reports, letting everyone know how much material is being recycled, and translating

this information into information such as how many trees were saved.

- Some law offices may find it appropriate to give the revenue generated by the recycling program to charity or dedicate it to some other purpose within the law office.

F. Other materials may be recycled in a law office, including aluminum beverage cans, glass and plastic containers, and newsprint.

RECYCLING AND CONSERVATION BLUEPRINT FOR LAW OFFICES

1. Attorneys and Staff

- Recycle the following:
 - Office stationery
 - Computer paper
 - Newsprint
 - Aluminum cans
 - Plastic and glass
- Make two-sided copies and use reductions.
- Use back side of poor/botched photocopies (for notes and telephone messages).
- Circulate periodicals and other "for your information" materials instead of mass distribution of photocopies.
- Use ceramic coffee mugs instead of paper/styrofoam cups.
- If you must use disposables, substitute paper for plastic products.
- Reuse manila folders.
- Discourage the use of colored paper for coding (i.e., to identify file copies, internal copies, etc.); instead, encourage use of white paper and color code by using felt tip markers.

2. Supply Room

- Buy white 8½" x 11" legal pads instead of yellow 8½" x 14" pads.
- Recycle:
 - White or buff-colored office stationery
 - Corrugated cardboard
 - Computer paper
- Stock recycled paper stationery and envelopes.
- Buy copy paper made of recycled paper.
- Stock manila folders instead of plastic ones.

- Stock refillable pens instead of disposables.
- Substitute water-based for solvent-based correction fluid.
- Do not buy colored paper.

3. Office Management

- Recycle the following:
 - Office stationery
 - Computer paper
 - Newsprint
 - Aluminum cans
 - Plastic and glass
- Encourage recycling by having visual reminders in copy rooms.
- Encourage employees to keep "personal" reusable coffee mugs and use disposables only for outside visitors.
- Use recycled paper for firm announcements, stationery, and brochures.
- Designate a "recycling controller" to work with supply room staff to designate the least environmentally destructive alternative that will meet office's needs.
- Recycle closed-out files.
- Make fewer copies - cut full sheets for short memos; use reduction copy features and two-sided copy.
- Buy paper plates and cups instead of styrofoam and encourage use of ceramics instead of disposables.
- Encourage carpooling and use of public transportation.
- Use a plant maintenance company that minimizes the use of insecticides or uses plant-derived products.
- Encourage energy conservation by reducing heat and air conditioning use and general electrical use.

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REGION OF HAMILTON-WENTWORTH

- RECOMMENDATION -

DATE: 1991 May 2

REPORT TO: Chairman and Members
Chairman's Advisory Committee on Environmental Issues

FROM: Dr. Fran Scott
Medical Officer of Health

SUBJECT: Control of Ozone-Depleting Substances (HEA 91-035)

RECOMMENDATION:

- a) That the Regional Chairman present a proposed amendment, as outlined in Report HEA 91-035, to Section 149 of the Regional Municipality of Hamilton-Wentworth Act, respecting the control of ozone-depleting substances, for discussion at a meeting of the Regional Chairmen's Group of Ontario, with a view to encouraging other Regions within the Province to request, along with the Region of Hamilton-Wentworth, that the Provincial Minister of Municipal Affairs amend the Acts of the respective municipalities to allow for the control of ozone-depleting substances;
- b) That following his presentation before the Regional Chairmen's Group, the Regional Chairman report back to Council, through the appropriate Committees, on the outcome of the discussions;
- c) That Report HEA 91-035, respecting the control of ozone-depleting substances, be forwarded to the Engineering Services Committee for approval, and Legislation and Reception Committee for information.



Fran Scott, MD, CCFP, FRCPC, MSc
Medical Officer of Health

FINANCIAL/STAFFING/LEGAL IMPLICATIONS

Financial/Staffing

The proposed amendment to the Regional Municipality of Hamilton-Wentworth Act will give the Region the power to pass by-laws to regulate the disposal of ozone-depleting substances and the testing, servicing and repair of products, material and equipment containing or manufactured using ozone depleting substances. For the by-law to be effective

resources will have to be directed toward education and enforcement. The minimum requirement for this endeavour could be met by one public health inspector position. When the amendment has been approved by the province and a Regional by-law is in process, the Department of Public Health Services will bring forward a budget request for this position. The Department will request provincial cost-sharing for the position. Such funding is likely but it should not be assumed because the job activities of the position are not clearly covered by the current Mandatory Health Programs of the Ministry of Health.

Legal Implications

There is currently no legal authority under the Regional Act for the Region to pass by-laws to regulate ozone-depleting substances. The Region currently has a request before the province to amend the Act to expand the powers of the Region with regard to waste management in other respects. Any requests by the Region to further amend the Regional Act regarding ozone-depleting substances would be considered either in conjunction with or subsequent to the Province's review of the earlier amendment request.

The steps in gaining the legal authority to pass a by-law regulating ozone-depleting substances are:

1. Regional Council must approve the specific wording for the amendment to the Regional Act that is being requested;
2. the Regional Chairman submits the amendment request to the Minister of Municipal Affairs. The Ministry will then carry out an internal staff review of the desirability of such an amendment (ie. looking at such issues as wording and jurisdiction). The Ministry staff may bring concerns back to Regional staff or Regional Council with the suggestion to amend the wording of the amendment request.
3. When the Ministry is satisfied that the legislative amendment is desirable and appropriately worded, the amendment is brought forward to Provincial parliament for three (3) readings and Royal Assent.
4. There is no requirement to draft a Regional by-law in order to obtain legal authority under the Regional Act. Any by-law that contains wording which falls within the legal authority granted by the Province will be enforceable. Further, to draft or pass a by-law before the amending legislation is passed would be premature as it is unknown as to the exact wording of the final version of the amendment which will be approved by the Province. However, consultation with those in the community who will be affected and the educational process can begin before the by-law is in place and will increase its effectiveness once it is passed.

The above-noted process to obtain an amendment to the Regional Act can take well over one (1) year to complete.

The proposed amendment to the Regional Act has been prepared by the Legal Services Department and is appended as Schedule "A" to this Report. It is based on the draft legislation which the City of Toronto intends to submit to the Province within the next few months.

BACKGROUND

Origin

This Committee has discussed the municipal role in the effort to prevent the release of ozone-depleting substances into the atmosphere on several occasions. The Committee received a deputation from Mr. Jim Tapley on December 14, 1989. The Committee requested that the Regional Solicitor prepare a by-law on CFCs for the Region. The Regional Solicitor reported to the March 9, 1990 meeting of the Committee concerning the Region's lack of authority to pass a by-law concerning CFCs and on provincial initiatives in this area. The item was tabled for further investigation. On October 12, 1990 the Committee received correspondence from Dr. Brian Gibson, Associate Medical Officer of Health for the Region with regard to the desirability of developing responsible in-house regional policy with regard to the recovery of CFCs. The matter was discussed and the item tabled for further information.

On December 13, 1990, the Committee had before it a communication from the City of Toronto with regard to the changes that it was making in its by-law with respect to CFCs, halons and other ozone-depleting substances. The City's report outlined a restricted but appropriate role for municipal governments in this matter in light of the recent federal and provincial legislative initiatives and urged other municipalities to act in a similar fashion. The Committee recommended:

- a) That the Health Department and Legal Services Department report back to committee on the process of enabling legislation and the passing of a by-law on banning the use of CFCs in the Region of Hamilton-Wentworth;
- b) That staff prepare a timetable and reporting structure in order to establish and enforce this by-law.

This Report has been prepared in response to the Committee's request.

OZONE-DEPLETING SUBSTANCES: THE PROBLEM

Ozone depleting substances such as chlorofluorocarbons (CFCs) and halons have become widely used chemicals in both household and industrial applications. In Canada, the commonest application of CFCs is refrigeration, including freezers, refrigerators and air conditioners. They have also been used as aerosol propellants, as industrial solvents and in the manufacturing of plastic foams. Halons are used mainly in fire extinguishers.

Recent attention has focused on these substances because of mounting evidence that their release into the atmosphere during the manufacture, use and disposal of the above materials causes serious environmental damage. When released into the air CFCs and halons migrate to the upper atmosphere (the stratosphere). Here, the action of the sun breaks them down, releasing chlorine and bromine atoms. These atoms destroy ozone (stratospheric ozone¹). Each chlorine or bromine atom is capable of destroying thousands of ozone molecules. A number of research studies have documented severe depletion of stratospheric ozone particularly over Antarctica. The National Aeronautics and Space Administration in the U.S. has reported that stratospheric ozone over North America has decreased by 1.7 to 3.0 per cent in recent years. The most recent evidence indicates that the problem may even be more severe than this.

Stratospheric ozone depletion has important public health ramifications because ozone naturally filters ultraviolet radiation emanating from the sun, reducing the amount of this radiation reaching the earth's surface. Ultraviolet radiation is an important causal factor in skin cancers and cataracts. Studies of skin cancer and cataract rates over time have indicated that these health problems are increasingly prevalent, and depletion of the protective stratospheric ozone layer has been implicated as a cause. Significant changes in personal habits with regard to sun exposure have also occurred over the last few decades so that it is difficult to estimate precisely the contribution of stratospheric ozone depletion to skin cancer trends.

In addition, CFCs present lower in the atmosphere, below the stratosphere have been linked to global warming, which has its own potentially severe environmental consequences.

PROVINCIAL AND FEDERAL INITIATIVES AND THE ROLE FOR REGIONAL LEGISLATION

What role can municipalities play in reducing public health hazards related to CFCs and halons ? As is the case with respect to other environmental issues, responsibility for legislation rests with various levels of government - Federal, Provincial and Municipal.

¹Stratospheric ozone should not be confused with ground-level ozone, which results from the reaction with oxygen and sunlight of products of combustion of fossil fuels; ground-level ozone acts as a respiratory tract irritant.

Table I summarizes legislation enacted by the Federal and Provincial governments which pertains to the regulation of CFCs and halons. It also notes where potential Regional by-laws regarding reduction of CFC and halon related hazards would and would not be useful in light of existing federal and provincial legislation.

Monitoring of CFC and halon production, use and handling in industry, and prohibition of CFC/halon production are covered with varying completeness by existing Federal and Provincial environmental legislation and these areas fall clearly within federal and provincial jurisdiction. As indicated in table I, Federal and Provincial initiatives regulating the production of CFCs and halons do not constitute global bans on production. Rather, specific phase-out dates are targeted for specific substances.

**TABLE I - ACTION TO REDUCE CFC/HALON HAZARDS
BY LEVEL OF GOVERNMENT²**

ACTION REQUIRED	Federal Environmental Protection Act	Provincial (Ontario) Environmental Protection Act	Regional By-law (Hamilton- Wentworth)
Registration of CFC/Halon producers, users, handlers	Yes	Yes	Redundant
Prohibition CFC/Halon Production	Yes*	Yes*	Redundant
Regulation of Disposal, Recovery and Recycling	No	Yes (see text)	Potentially useful
Regulation of Emissions From Repair of CFC/Halon Containing Equipment	No	Yes (see text)	Potentially useful

*Specific product regulations in effect; no global regulations.

Regulations prohibiting CFC-containing aerosols (with some exceptions) and CFC-containing foam packaging are already in effect at the Ontario provincial government level. Provincial legislation is also in effect which aims to phase out CFCs in rigid and flexible foams by 1994 according to a year by year phase-out schedule.

Federal government regulations currently in effect freeze halon consumption at 1986 levels

²Table adapted from City of Toronto Department of the City Clerk. Executive Committee Report No. 22. Toronto: October, 1990.

which will prohibit CFCs in aerosols (with some exceptions) and food packaging nation-wide by the fall of 1991. While there is pressure on the federal government to aim for a more rapid and comprehensive reduction in CFC and halon production in accordance with the London amendment to the Montreal Protocol (complete CFC phase-out by 1997) and the federal Minister has expressed his intention to do so, the London amendment has not yet been introduced into federal law in this country. Other federal and provincial legislation in these areas is pending particularly with respect to halons in fire extinguishers.

There is considerable overlap between legislation pertaining to CFC/halon emission during repair and that pertaining to CFC/halon disposal, recovery and recycling. Provincial legislation making recovery and recycling (or regulated disposal) of "mobile refrigerant waste" mandatory comes into effect July 1, 1991. This waste refers to CFCs from mobile air conditioners or refrigerators such as car, truck and bus air conditioners and refrigerated truck trailers and railway cars. The province has indicated that it intends also to make the recovery and recycling of "stationary refrigerant waste" mandatory. These are CFCs from stationary sources such as home or commercial air conditioners or refrigerators. The regulations now require those who do dispose of or recycle stationary refrigerants to do so according to the regulations.

There is room for a municipal effort to regulate disposal, recovery and recycling of CFCs particularly with regard to stationary refrigerant waste. Current federal and provincial legislation does not fully address all dimensions of the problems with respect to the prevention of the release of refrigerants into the environment. A municipal role has been supported by the Ad Hoc Working Group of the Federal-Provincial Canadian Environmental Protection Act Advisory Committee, whose purpose has been the coordination of environmental legislation across various levels of government (as reported in City of Toronto Executive Committee Report No. 22, 1990). Specifically, the Working Group has identified three areas as appropriate for municipal initiatives relating to CFCs and Halons:

- 1) Recovery and recycling of CFCs from equipment such as refrigeration equipment destined for disposal;
- 2) Monitoring and enforcement of recovery and recycling of CFCs by commercial users of such equipment; and
- 3) Establishment of recovery and recycling requirements under various permitting programs at the municipal level.

Other municipalities have enacted or intend to enact CFC-related legislation. These include the City of Toronto, the City of Winnipeg and the City of Ottawa. Initially Toronto's CFC by-law overlapped considerably with Federal and Provincial environmental protection legislation. It has since been amended to reflect the appropriate avenues for municipal action on the CFC issue, as determined by the Ad Hoc Working Group.

CURRENT SITUATION IN HAMILTON-WENTWORTH

A telephone survey was conducted on 11 mobile and stationary refrigeration and air conditioning service companies. Based on their response, it appears that the most progress in recovery and reuse has been made in the mobile air conditioning services. Of the four businesses contacted one had been recycling for over a year, two had recycling equipment on order and only one had not yet taken any action. The positive action in this area is to be expected since Ministry of the Environment legislation calling for the recovery and reuse of mobile refrigerants comes into effect July 1, 1991.

Air conditioning contractors dealing with large units that service office and residential buildings are presently receiving information about methods of recovery and reuse of CFC refrigerants and about equipment conversion kits which will allow them to switch to CFC free refrigerants. Although the regulations to require that stationary refrigerant waste be recovered and recycled (or disposed of by destruction) have not yet been enacted, members of this sector indicated that the industry realizes that they must start taking steps now.

The response of the small appliance and stationary refrigeration unit services was not as positive. Of four businesses contacted only one was making plans for CFC recovery.

SCHEDULE "A"

Proposed Amendment to the Regional Municipality of Hamilton-Wentworth Act

149a (1) In this Section,

"dwelling" means real property used or designed for use as a home or as a place in which one or more persons may sleep;

"inspector" means a person appointed by the Council of the Regional Corporation for the purpose of enforcing a By-law passed by the Regional Corporation pursuant to this Section;

"ozone depleting substance" means a chlorofluorocarbon, a halon or any other substance that has the potential to destroy ozone in the stratosphere.

- (2) The Council of the Regional Corporation may pass By-laws for regulating the disposal of ozone depleting substances and the testing, servicing and repair of products, material and equipment containing or manufactured using ozone depleting substances.
- (3) A person appointed as an inspector under Subsection 1 herein is further appointed as a municipal by-law enforcement officer for the purpose of enforcing a By-law passed by the Regional Corporation pursuant to this Section.
- (4) For enforcement of any By-law passed under this Section, an inspector, upon producing proper identification may at all reasonable hours, enter any place of business and may make examinations, investigations and inquiries.
- (5) No inspector may enter a place of business that is also a dwelling without the consent of the occupant or without first obtaining and producing a warrant.
- (6) No person shall hinder or obstruct an inspector lawfully carrying out the enforcement of any By-law passed under this Section.
- (7) If any person
 - (a) denies entry or access to an inspector to a place of business;
 - (b) instructs or directs an inspector to leave a place of business;

- (c) obstructs an inspector from carrying out the enforcement of a By-law passed under this Section; or
- (d) refuses to comply with a request for the production of any thing, the production of which is requested for the purpose of an examination, investigation or inquiry,

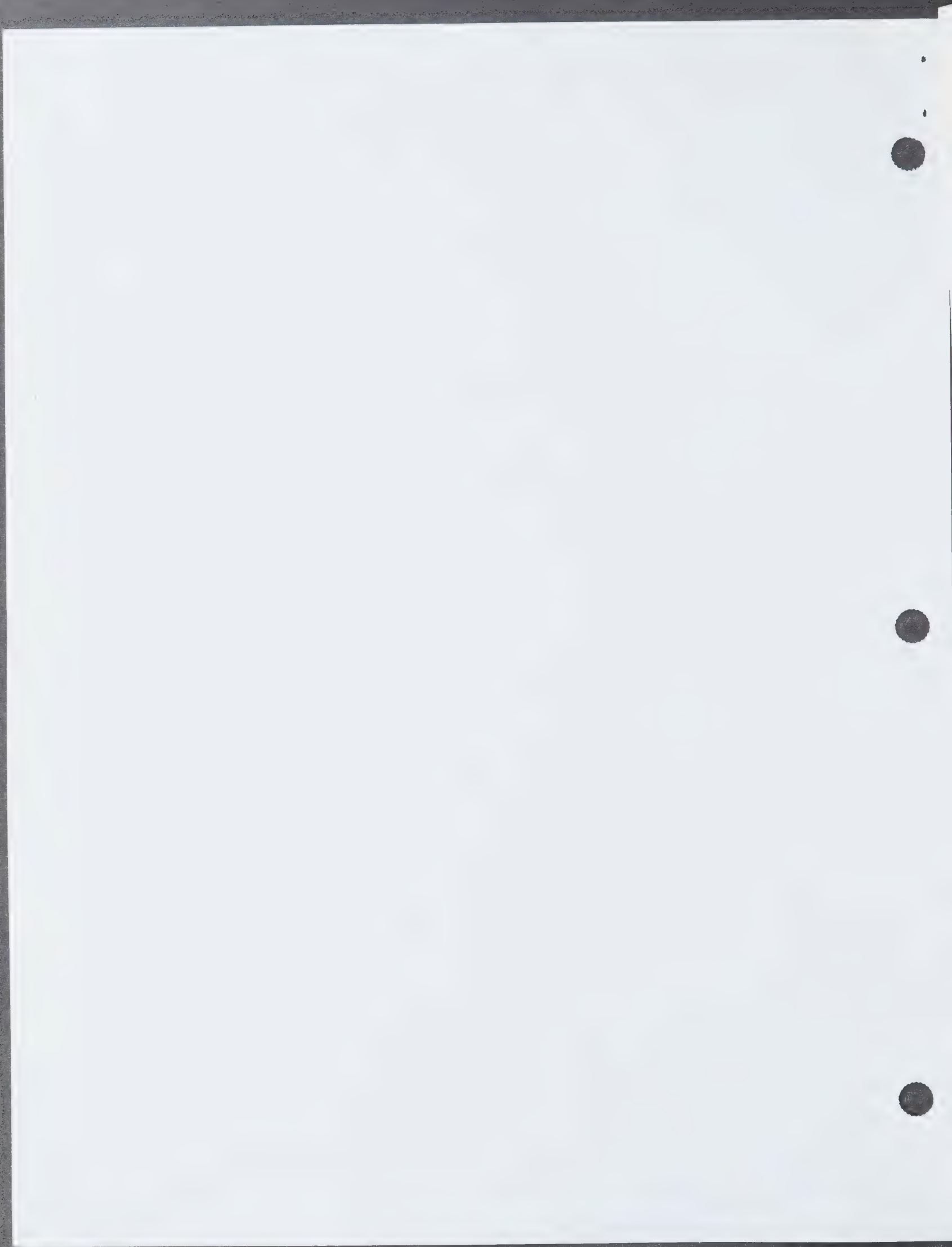
an inspector may apply to a justice of the peace for a warrant.

- (8) If a justice of the peace is satisfied on evidence under oath
 - (a) that there is reasonable and probable ground for believing that it is necessary to enter and have access to any place of business or to make examinations, investigations and inquiries for the purpose of this Section or the enforcement of any By-law passed under this Section; and
 - (b) that an inspector
 - (i) has been denied entry to the place of business;
 - (ii) has been instructed or directed to leave the place of business;
 - (iii) has been obstructed; or
 - (iv) has been refused production of any thing related to an examination, investigation or inquiry,

the justice of the peace may issue a warrant authorizing an inspector to act as mentioned in clause (a) in respect of the place of business specified in the warrant, by force if necessary, together with such police officers as may be called upon to assist the inspector.

- (9) A warrant issued under this Section shall be executed at reasonable times as specified in the warrant.
- (10) A warrant issued under this Section shall state the date upon which it expires, which shall be a date not later than fifteen (15) days after the warrant is issued.
- (11) A justice of the peace may receive and consider an application for a warrant under this Section without notice to and in the absence of the employer or owner or occupier of the place of business.

- (12) Subject to Subsection 13 herein, every person who contravenes Subsection 6 herein or any provision of a By-law passed under this Section is guilty of an offence punishable on summary conviction and is liable to a fine of not more than Five Thousand Dollars (\$5,000.00) for every day or part of a day on which the offence occurs or continues or to imprisonment for a term not exceeding six (6) months or to both.
- (13) Where a corporation is convicted of an offence under a By-law passed under this Section, the corporation is liable to a fine of not more than Fifty Thousand Dollars (\$50,000.00) for every day or part of a day on which the offence occurs or continues and every director or officer of a corporation who knowingly concurs in a contravention of the said By-law is guilty of an offence and is liable to a fine not exceeding Ten Thousand Dollars (\$10,000.00) for every day or part of a day on which the offence occurs or continues or to imprisonment for a term not exceeding one (1) year or to both.



THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Planning and Development Department
119 King Street West, 14th floor
Hamilton, Ontario
(416) 546-4186 Fax (416) 546-4364

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3
9

April 15, 1991

Refer to File No.

Attention of 764.61 3

Your file No.

Chairman's Committee on Environmental
Issues

c/o Mr. Ken Pidsadny
Regional Clerks Department

Dear Mr. Pidsadny:

**Re: Environmentally Sensitive Area
Development Sensitivity Study
Geomatics International 1990**

RECEIVED

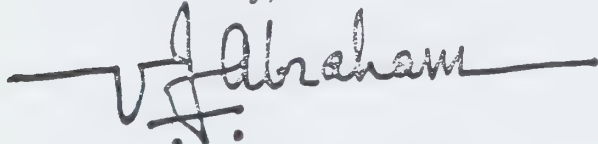
APR 16 1991

REGIONAL CLERKS OFFICE

The above noted study, prepared by the consulting firm of Geomatics International (March 1991) has been received by the Regional Economic Development and Planning Committee. The Committee has directed that the report be circulated to various agencies for comment and that Planning staff report back on the comments and implementation of the study findings.

Therefore, would you please review the enclosed study and return any comments you may have, prior to May 17, 1991. If you have any questions regarding the study please contact Gary Wilson at 546-4320.

Yours truly,



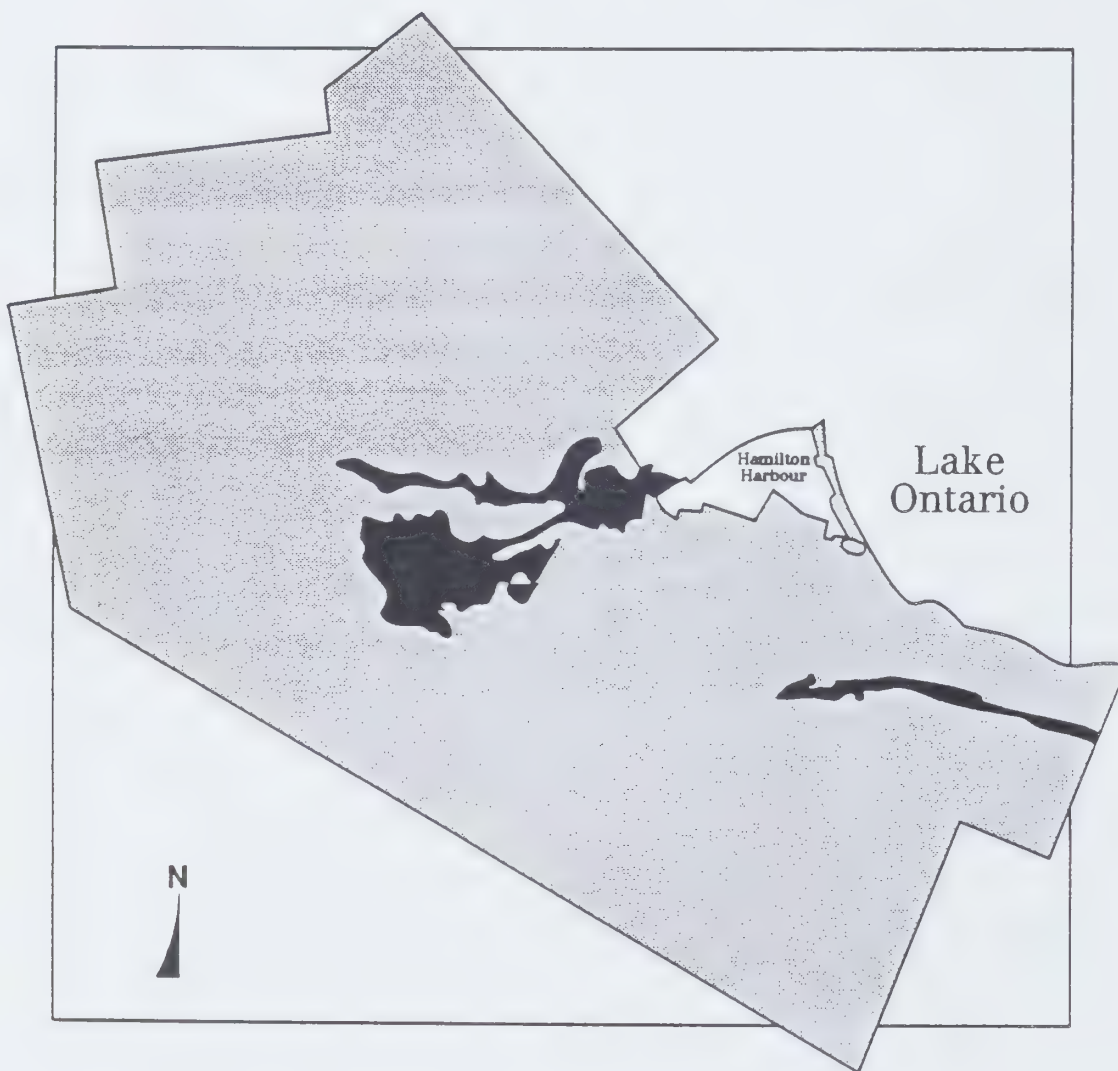
V.J. Abraham, M.C.I.P.
Director, Regional Planning Branch

GW:fd
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THE REGIONAL MUNICIPALITY OF
HAMILTON-WENTWORTH

E.S.A. Development Sensitivity Study



Geomatics International



STUDY OBJECTIVES

The overall objective of this study was to review eight ESAs within the Regional Municipality of Hamilton-Wentworth with respect to the implications of incremental developments and determine measures to ensure that the integrity of these ESAs is not jeopardized. The eight study ESAs are:

- ESA 12 Christie Conservation Area*
- ESA 13 Spencer Gorge*
- ESA 14 Borer's Falls*
- ESA 15 Royal Botanical Gardens-Cootes Paradise*
- ESA 18 Dundas Valley*
- ESA 19 Tiffany Falls*
- ESA 24 Felker's Falls and Niagara Escarpment*
- ESA 25 Niagara Escarpment-Devil's Punch Bowl East*

Specific sub-objectives were:

- 1) examine each of the eight ESAs according to their selection criteria, their physical/biological characteristics and developments occurring within and adjacent to them in order to define appropriate boundaries and buffer areas;
- 2) evaluate the impact of present developments and identify impacts from various forms of potential developments; and
- 3) evaluate the effectiveness of ROP objectives, policies and procedures relating to all aspects of the long-term protection of ESAs in Hamilton-Wentworth.

MAPPING

Maps of each of the eight study ESAs have been prepared using the 1:10,000 scale Ontario Base Maps (OBMs) from information interpreted using 1:20,000 colour 1990 aerial photographs. Information on the maps includes:

- o the location of all access points;
- o parking locations;
- o refuse dumps;
- o the location of developments;
- o the 1976 ESA boundaries (approximate);
- o an interpreted 1990 boundary; and
- o natural areas contiguous to each ESA;

CHAPTER 4 ESA INFORMATION UPDATE AND DEVELOPMENT IMPACTS

Christie Conservation Area

Two features within this ESA have been designated as significant since the Ecologistics (1976) report was prepared. These include the Guelph-Lockport geological contact which has been designated a provincially significant earth science Area of Natural and Scientific Interest (ANSI) and the Darnley Mill which has been identified as a significant heritage resource.

The criteria which have been established for the Christie Conservation Area ESA continue to apply and, the data for criterion 6 (rare species) should be expanded to include at least one additional fish species. The information base on water quality in the reservoir is not sufficient to compare with the data supporting criterion 3 (with regard to temperature and oxygen concentration).

The ESA has not experienced major physical impacts due to developments since the ESA was designated. Concern relates primarily to ongoing pressures for residential developments around the edge of the ESA which can contribute sediment and other contaminants typical of urban runoff to this ESA as well as downstream ESAs.

The major concern for this ESA is the Provincial Water Quality Objective violations for total phosphorus and ammonia during 1988, 1989 and 1990. Certificate of Approval exceedences for these parameters from Tend-R-Fresh and for suspended solids from ORENCO (1988) contribute to pollution in the Christie Reservoir and downstream.

Spencer Gorge (Webster's and Tew's Falls)

Since the 1976 ESA designation the gorge has been designated a Carolinian Canada Site as well as a provincially significant life science ANSI. The bedrock outcrops in the gorge compose one of eight key geological exposures within the region which, in total, are designated as provincially significant. The original criteria for Spencer Gorge ESA continue to apply.

Some of the species identified in the 1976 ESA report are no longer considered rare, however, there are a number of rare plants and the possibility of a rare species of snail.

Impacts to this ESA relate primarily to water quality. The physical condition of the area has not been impacted such that any of the criteria are diminished.

Borer's Falls - Rock Chapel

The escarpment forest of this ESA has been designated as a regionally significant life science ANSI and the bedrock exposures at Rock Chapel form one of eight key geological exposures in the region which are designated as provincially significant.

All ESA criteria continue to apply for Borer's Falls - Rock Chapel ESA. The list of rare plants initially identified under criterion 6 requires updating as some of the species are no longer considered as 'rare'. In addition to those species identified in the Ecologistics (1976) report, there are two provincially rare butterfly species and two provincially rare plants also known to be present.

Physical impacts to the ESA include the removal of portions of the ESA due to subdivision developments in its southwestern corner. The other main impact is from sediment contributions related to exposure of the clay soils and Queenston Shale during construction and channelization. These likely have minimal impacts on Borer's Falls ESA, but are of considerable impact to Cootes Paradise ESA.

Royal Botanical Gardens - Cootes Paradise

Since the Ecologistics (1976) report, the Royal Botanical Gardens - Cootes Paradise ESA has been designated by the Ontario Ministry of Natural Resources as a provincially significant life science ANSI and a Class 1 Wetland.

The current data base regarding rare and significant species indicates that the ESA serves to protect a much greater number of significant and rare plant and animal species than identified by Ecologistics in 1976 (criterion 3 and 6). The marsh continues to be a very significant environmental feature within southern Ontario.

The combination of sedimentation and water quality exceedences in Cootes Paradise and its tributaries is of concern and have likely impacted the biota of the area. Sediment contributions from upstream sources have resulted in serious cumulative impacts to the ESA. Sedimentation within Cootes Paradise is probably the most important impact to the area in terms of consideration within the approval process for upstream developments. However, these impacts also occurred prior to the designation of the ESA as well and, hence, the original criteria are not considered diminished.

The available evidence regarding water quality conditions suggests that, although exceedences of guidelines continue, recent remedial activities within the watershed have reduced the magnitude of impacts. The Remedial Action Plan (RAP) currently being developed for Hamilton Harbour appears to be addressing issues related to physical and chemical impacts in Cootes Paradise and, thus, implementation of the RAP should result in further improvements to the ESA.

Dundas Valley

Areas within the Dundas Valley ESA have been designated by provincial agencies as significant. The entire Dundas Valley is a provincially significant earth science ANSI for its geomorphological expression of features and events representing the late Pleistocene. Mineral Springs and Sulphur Creek Forests are provincially significant life science ANSIs. Other forests within the ESA have been designated as Carolinian Canada Sites. There are also three regionally significant life science ANSIs and one regionally significant earth science ANSI within the Dundas Valley ESA.

The number of plants, mammals and birds in the Dundas Valley ESA which have a rare status is less than that indicated in the original criterion (#6). However, the ESA is still a very important refuge for rare species including at least 13 plants, 4 mammals, 6 herptiles, 18 birds, 1 fish and 3 butterflies.

The Dundas Valley ESA has undergone the greatest number of developments of all eight ESAs studied. A total of 34 rezoning or development applications have been made. Of the 33 developments for which information was available, construction had proceeded on 25 and EISs had been prepared for only 4. Development type had no bearing on whether or not an EIS was prepared.

Identified impacts to this ESA include habitat loss, erosion and siltation, tree damage (cutting, delimbing), visual impact (from adjacent road), slope impact (with regard to setback requirements), dumping, and landform impact (removal). In addition, rural estate dwellings located in natural areas and without adjacent residential developments are identified as precedent-setting.

Individual impacts from at least three developments were identified as contributing to a diminishment of criteria including: distinctive landforms (criterion 1); rare/significant species (criterion 6); large and undisturbed habitats (criterion 7); and aesthetic quality (criterion 9). Cumulative impacts from developments within, adjacent and upstream of the ESA were also identified. These include changes to stream hydraulics and reduction in groundwater infiltration (criterion 2), erosion and siltation within streams (criterion 3 - aquatic communities), loss of habitat diversity (criterion 5), large and undisturbed habitats (criterion 7) and aesthetic quality (criterion 9).

Although criteria 1, 2, 3, 5, 6, 7 and 9 have been diminished to varying degrees by developments in, adjacent or upstream of the Dundas Valley ESA, they continue to apply. The large size and complexity of the ESA, in combination with the existing protection programs of the Regional Municipality, local municipalities and the Conservation Authority, have maintained its overall ecological significance. However, cumulative impacts are occurring and increased protection measures will be required to ensure the viability of all criteria, but especially criteria identifying groundwater and hydrology (criterion 2) and habitat diversity (criterion 5). The nature of impacts are such that future development proposals should undergo complete EISs with particular emphasis on the criteria which have already been impacted.

Tiffany Falls

The geological exposures in Tiffany Falls ESA have been designated as a regionally significant earth science ANSL. The forests of the escarpment slopes and brow have been designated as a Carolinian Canada Site.

The ESA has not been seriously impacted since it was first designated and criteria 1 and 4 continue to apply, however, the presence of the nesting site for the two rare bird species, particularly the black-throated green warbler, requires verification.

Felker's Falls

The geological exposures associated with Felker's Falls has been designated as a regionally significant earth science ANSL. The forests within the valley of Felker's Creek has been identified for potential designation as a locally significant life science ANSL.

The criteria for Felker's Falls ESA have not been impacted or diminished since it was designated.

Devil's Punch Bowl East

The Devil's Punch Bowl feature has been designated as a provincially significant earth science feature for the quality of the bedrock exposures as well as for illustrating transitions in particular strata. The escarpment forests within the ESA also form portions of three life science ANSLs including two regionally significant ANSLs and one provincially significant ANSL.

Four of the five criteria used to designate the Devil's Punch Bowl East ESA continue to apply to the ESA. Criterion #6 may no longer apply as the upland sandpiper is not currently listed by the ORBBP. Criterion #3 continues to apply in terms of the high quality forests, however, the yellow false foxglove is no longer considered rare.

Impacts have occurred to the mature oak forest in the vicinity of the secondary escarpment due to residential construction. Although criterion #3 did not specifically identify this portion of the ESA, the development has clearly diminished the overall application of the criterion. Also, the landform character of the secondary escarpment (criteria 1 and 9) has been degraded by these developments.

The proximity of Ridge Road to the escarpment brow has resulted in serious problems related to the dumping of refuse and, in the vicinity of the Punch Bowl, erosion. This has resulted in impacts to the forests (criterion #3) as well as to the overall aesthetics of the western portion of the ESA (criterion #9).

CHAPTER 5 ESA SENSITIVITY, IMPACTS AND PLANNING CONSIDERATIONS

Generally, the five escarpment ESAs (Devil's Punch Bowl, Felker's Falls, Tiffany Falls, Spencer's Gorge and Borer's Falls - Rock Chapel ESAs) are not sensitive to water quality, water quantity or siltation impacts as they were not designated on the basis of hydrologic regime, high quality aquatic habitats or rare fish species. In addition, the streams crossing the escarpment have high gradients with little opportunity for suspended material to be deposited. Sensitivity in these ESAs relates primarily to the loss or degradation of high quality forests, disruption of ecological linkages, aesthetic deterioration and disturbance or loss of rare species.

In general, the escarpment ESAs have undergone relatively little disturbance from development since they were designated in 1976. The original criteria employed to designate them remain valid although impacts in certain ESAs have had a minor effect on certain criteria. Formal designations of species' rarity have resulted in the deletion of criterion #6 for the Devil's Punch Bowl ESA as well as changes (additions and deletions) to the rare status of species in other ESAs.

Developments have not directly impacted upon Christie Conservation Area ESA, due in large part to its ownership by the Hamilton Region Conservation Authority. Downstream reaches have been encroached by subdivisions and two additional subdivisions are currently proposed for areas adjacent to the ESA. Of primary concern with regard to the sensitivity of this ESA is water quality.

Cootes Paradise ESA is also owned by a public agency (Royal Botanical Gardens). This ESA is most sensitive to water quality deterioration, the loss of marshland and intensive/extensive use of nature trails. Its location at the downstream end of a watershed which is currently undergoing intense residential development along with established commercial, agricultural and industrial land uses has resulted in impacts on the ESA.

Dundas Valley ESA has undergone the most intensive and extensive development of all the ESAs examined. Residential development in the form of single family homes and subdivisions has occurred and continues to occur both within and immediately adjacent to the ESA. Individual impacts associated with the destruction of landforms and potential disruption of habitat for rare species have been documented. In addition, cumulative impacts associated with selective habitat loss, hydrologic regime, reduction in size of large undisturbed areas and aesthetic deterioration have occurred. The sensitivity of this ESA to these kinds of impacts has clearly become more acute as a result of past developments.

Waivers in lieu of EISs have been granted for 86.5 percent (32 of 37) of development applications within and adjacent to ESAs. As a result, there is not sufficient documentation with which to assess the degree of impact to ESA criteria, particularly the type and amount of lost habitat or significant species.

There is no rationale for granting waivers based on size of development or degree of potential disturbance. Large subdivision proposals have been granted waivers whereas EISs have been prepared for the construction of a single family home on a lot which was formerly occupied.

EIS documentation provided was insufficient to assess all potential impacts because in most cases: (1) only selected criteria were evaluated; (2) the scope and timing of biological field studies were inappropriate; and/or (3) critical conclusions were not supported with field or literature justification.

The nature and consequences of ESA boundary modifications are generally not addressed in either waiver statements or EISs. As a result, there is no mechanism to continually update and refine ESA boundaries as required in the Regional Official Plan.

The lack of buffer zones and the presence of road access to the natural edge of ESAs has resulted in encroachment and physical disturbance to certain ESAs due to uncontrolled access and the dumping of refuse.

Siltation control devices within Hamilton-Wentworth are not utilized or not adequate in 95 percent of developments. Also, their use varies considerably by local municipality. In those cases where siltation control devices are employed there appears to be a lack of follow-up to ensure they are being properly maintained. The lack of follow-up also appears to apply to other mitigation measures recommended as conditions of approval.

CHAPTER 6 ESA POLICY AND DEVELOPMENT REVIEW PROCESS ANALYSES

The development of a natural areas policy to replace the ESA policy framework will not enhance the protection of ESAs. The use of objective technical data to identify and determine the significance of ESAs and their features will provide the strongest long term protection measures. However, application of a natural areas policy to areas currently excluded from ESA designation would enhance the environmental policies of the Region.

The ROP policy objective of protecting ESAs to the fullest extent possible is not being met on the basis of:

- (1) the existing ROP policies - existing policies need to be strengthened and recommendations for rewording and content changes are provided;
- (2) the development review process - the current process utilizes the local municipality for the first level of the approval process which results in a lack of consistency in application, a restricted consideration of impact vis à vis implications of the development on ESAs downstream but outside of the local municipality, and a restricted assessment with regard to representativeness; and
- (3) the waiver/EIS process - the granting of waivers has no rationale with regard to the potential impact from the development and the documentation from waiver statements and EISs has not been sufficient to meet the requirements of the ROP.

To ensure the consistent application of ROP policies, it is concluded that the Regional Municipality of Hamilton-Wentworth should be the first step in the review/approval process and, further, that to ensure the ESA Objective is met, the review process should include the use of an Environmental Advisory Committee and/or dedicated staff support.

RECOMMENDATIONS

CHAPTER 4 ESA Information Update and Development Impacts

- 4.1 The Ecological (1976) ESA report should be updated to include the information provided in the 'ESA Environmental Update' sections for each of the eight study ESAs. Particular reference to earth and life science designations (ANSIs); other official designations of significance (such as Carolinian Canada); and the updated rare status of plants, birds, mammals and insects should be made available to proponents. These designations and the occurrence of rare species are important factors for the full evaluation of impacts and the development of mitigation strategies.
- 4.2 ESA Environmental Updates should also be prepared for the other 29 ESAs not included in this study. Again, emphasis should be placed on objective designations of significance such as those identified in the updates for the eight study ESAs.

Field studies and field checking requirements were identified in the 'ESA Environmental Update' sections of Chapter 4. These should be undertaken in order to update and complete the baseline data requirements for development review purposes. Specific studies were identified for Borer's Falls, Spencer Gorge, Dundas Valley, Tiffany Falls and Felker's Falls ESAs.

High sensitivity areas of Christie Conservation Area ESA include the upland deciduous forests and some cedar swamp. Part of this highly sensitive habitat is not included in the ESA but is adjacent to it. All high sensitivity areas should be protected from development (Dillon 1988).

The Region of Hamilton-Wentworth and the Hamilton Region Conservation Authority should request the Ontario Ministry of the Environment to review the Certificate of Approval Limits for Tend-R-Fresh and guidelines established for ORENCO with regard to water quality violations in Spencer Creek/Christie Reservoir and determine, based on more recent data (1989/90) whether more stringent limits are required.

The lower slopes of the escarpment below the Steetley Brow Landfill (old Dundas Quarry) should be monitored annually for the presence of springs contaminated with leachate from the landfill. Seeps should be analyzed for nutrients, total phenols and total organic carbon. If contamination is identified, a leachate collection system may be required for the base of the escarpment (below the upper surface of the Queenston Shale) in order to protect Spencer Creek and Cootes Paradise.

The outdoor privies along the Bruce Trail east of Webster's Falls should be removed and replaced with facilities serviced with a vault and pump out.

The Dundas Valley ESA is experiencing tremendous pressures for development by single family residences and large subdivisions both within and adjacent to the ESA. Stormwater runoff from these developments has clearly impacted upon the ESA as shown in part by the increased requirement for impoundments. Due to changes in the hydrologic flow from these developments other impacts may seriously affect criteria 2, 3, 4 and 5. As such any further developments proposed for the areas within, adjacent or upstream of the Dundas Valley ESA should be required to assess the impacts associated with storm water runoff as part of the environmental approval process. Mitigation measures should be specifically identified prior to the development, including design features to maximize infiltration.

Control of surface erosion and elimination of stream siltation must be fully implemented for all developments within, adjacent and upstream of the Dundas Valley ESA. In addition to requiring measures such as silt curtains, off-channel siltation ponds, rip-rap, and so on, regular maintenance of the control structures with silt removal should also be instituted. Regulatory authorities should monitor development sites at least weekly and daily during rain events.

The systematic elimination of grass, old field and immature forest habitats by developments within the Dundas Valley ESA must be fully evaluated. Detailed field and mapping studies of each habitat type within the ESA should be undertaken and the role of each evaluated with regard to the requirements for plants, animals, birds and aquatic species. This work applies specifically to criterion #5. Criteria 1, 2, 3, 6, 7 and 9 were also noted as having been impacted to varying degrees and, thus, field and mapping studies should also be undertaken to provide a detailed assessment of their condition. These studies will provide a baseline of information against which to determine exact impacts of proposed developments as well as guide future acquisition and land use planning within the ESA.

- 4.11 In conjunction with the above recommendation, some assessment of the remaining undisturbed areas of the Dundas Valley ESA must be undertaken in order to provide a baseline for comparing impacts on criterion 7 (large, undisturbed areas). Arguments for proceeding with developments in terms of this concern deal with the proposed development in isolation. Each development is relatively small and, hence, this kind of piece meal assessment can easily lead to the loss of important expanses of undeveloped areas.
- 4.12 Uncontrolled access to the Dundas Valley ESA for four wheel drive and motorized off-road vehicles should be systematically identified and access control structures should be constructed. Of particular concern are access points in the upper portions of the valley including from Powerline Road, Gravel Pit Road (south of Mineral Springs), the Hamilton-Wentworth Police Shooting Range and via the abandoned TH&B rail line where it intersects Mineral Springs Road and other roads in this area.
- 4.13 One of the most serious cumulative impacts to the eight ESAs studied is the on-going sedimentation of Cootes Paradise and the consequent loss of marshland habitat. All developments within the watershed of Cootes Paradise, not just those within ESAs should be required to institute sediment control measures which will eliminate surface erosion during construction and allow for greater infiltration of rainfall and snow melt following construction.
- 4.14 Anthropogenic sources of copper, iron, phenols and phosphorus resulting in exceedences of Provincial Water Quality Objectives in Spencer Creek should be investigated and remediated. The recommendations presented by Painter et al. (1989) should also be instituted.
- 4.15 Vehicular access to trails in the Cootes Paradise ESA, particularly by off-road bikes and bicycles must be controlled. Many of the uncontrolled access points should either be controlled or closed completely. Controlled access points should have trail head control structures to restrict access. The RBG and Hamilton-Wentworth should also consider an educational program to make landowners adjacent to Cootes Paradise aware of the situation and provide a phone number for reporting incidents. Educational material should also be prepared to advise potential offenders of the concern in terms of the impact on the environment and any fines which may apply.
- 4.16 Developments proposed in and adjacent to Tiffany Falls ESA should be designed with sufficient setbacks (undeveloped buffer zones) to protect the forests of the steep shale slopes and prevent regrading.
- 4.17 Specific impacts and appropriate mitigating measures with regard to criterion 6 in Tiffany Falls ESA as a result of the Falling Brook Estates subdivision development should be determined prior to construction.
- 4.18 Impacts to criteria 1, 3 and 9 as a result of the Mapleview Estates subdivision expansion in Devil's Punch Bowl ESA should be fully evaluated. If of sufficient quality, the Regional Municipality of Hamilton-Wentworth in cooperation with the HRCA and the NEC should identify options to fully protect the last remnant of the secondary escarpment.

Ridge Road provides direct access for the dumping of refuse over the face of the escarpment in Devil's Punch Bowl ESA. This practice detracts from the aesthetic value of the ESA and, depending on the content of some materials, could be damaging to the forest as well as to surface and groundwaters. Options to eliminate this practice must be developed. The most costly option would be to realign Ridge Road so that it is well back from the edge of the escarpment. Another option would be to totally eliminate any opportunity for stopping or parking along the shoulder of the road. In any case, all access to the ESA in this area should be focused at the parking lot maintained by the HRCA to the east of the creek. The westerly parking lot should be removed.

- 20 Runoff from Ridge Road and culvert pipe outlets which are directed toward the edge of the escarpment are contributing to erosion of the escarpment face. These culverts are unsightly and erosion is damaging the escarpment slope forest as well as undermining the road. Realigning Ridge Road, as noted in the previous recommendation, would eliminate this problem. Other options include regrading the road and directing drainage toward Stoney Creek on the south side of Ridge Road.

CHAPTER 5 ESA Sensitivity, Impacts and Planning Considerations

- 5.1 Developments adjacent to ESAs should incorporate design measures to minimize access and disturbance to the ESA. Buffer zones at least 30 m in width should be incorporated between the ESA and rear property boundaries. In cases where the development is adjacent to habitat for rare species or high quality biological communities, the buffer may need to be even wider. Roads within the development should not permit direct access to the natural edge of the ESA but should be separated by buildings and/or buffer zones.
- 5.2 An EIS should be required as part of the approval process for developments within and immediately adjacent to ESAs involving subdivisions, townhouse developments, apartment buildings, single family residences on new lots (i.e., the lot was not previously inhabited or used for commercial/industrial facilities), stream alterations including reservoirs, upstream industrial operations whose effluent may impact water quality, stormwater drainage, and 'forest management'.
- 5.3 EIS documentation should address all criteria for which the ESA was designated, landforms and biological resources should be evaluated according to their significance as assigned in the technical literature and all statements of impact/effects should be supported by field work or relevant citations.
- 5.4 Mitigation measures which are required should be clearly indicated in the notice of approval and the proponent should be required to undertake whatever maintenance may be necessary. The region should monitor the implementation of mitigation measures which are specific to minimizing impacts to the ESAs.
- 5.5 The use of siltation control devices should be mandatory for all developments undertaken within the Regional Municipality of Hamilton-Wentworth. This practice would benefit all ESAs, but is particularly necessary to maintain the ecological significance of the Dundas Valley and Cootes Paradise ESAs.

CHAPTER 6 ESA Policy and Development Review Process and Analyses

- 6.1 Hamilton-Wentworth Regional Council should make revisions to ESA policies 5.3.2, 5.3.3, 5.3.4, 5.3.6, 5.3.7, 5.3.8, 5.3.9, 5.3.10, 5.3.12, 5.3.13, 5.3.16, 5.3.20, 5.3.21, 5.3.23 of its Official Plan, in accordance with the comments provided in Section 6.5 of this report.

- 6.2 Hamilton-Wentworth Regional Council should make major revisions to its ESA policies 5.3.15 and 14.9.2, in accordance with the comments and discussion provided in Section 6.5 of this report.
- 6.3 New, more detailed Environmental Impact Statement Guidelines should be drafted to serve as a framework for the completion of EIS studies. The new Guidelines should include statements on the appropriate season for conducting field inventories, and on the need for qualified field biologists to conduct such inventories.
- 6.4 If a process to grant waivers from an EIS is retained, it should reflect the high value placed on the natural environment by providing rigorous rules under which waivers may be granted. Such waivers should only be granted after due consideration from an advisory committee and Planning Staff.
- 6.5 The objectives of the ESA system, and the criteria upon which the ESAs are designated, should be embodied directly within the ESA policies of the revised Official Plan.
- 6.6 Additional policies placing primary emphasis on the natural environment in planning should be incorporated into the revised Official Plan, as discussed in Section 6.3 of this report. In particular, the identification of all green space would be supportive of ESA protection requirements. Natural areas adjacent to ESAs including both those shown as ANSIs and those without any formal designation of significance have been identified on the maps of the eight study ESAs. Areas identified as ANSIs should be included within the adjacent ESA. Consideration should also be given to incorporating these either as buffer areas or more formally under a natural areas policy.
- 6.7 The Regional Municipality of Hamilton-Wentworth should take more direct responsibility for the maintenance and enhancement of environmental quality within the Region by introducing and implementing stronger policies relating to the ESA system and green space in general.
- 6.8 The Regional Municipality of Hamilton-Wentworth should fully investigate the establishment of an Environmental Advisory Committee. Such a committee is the most effective way to ensure the consistent application of the ESA policies and review process as well as provide a high level of technical expertise required to fully evaluate potential impacts and the adequacy of EISs. If an EEAC is established then the option to request a waiver from the EIS requirements should be removed from policy.



Ministry
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April 8, 1991

Mr. Ken Pidsadny
Regional Chairman's Office
Legislative Coordinator
Region of Hamilton-Wentworth
119 King Street West
15th Floor
Hamilton, Ontario

Dear Mr. Pidsadny:

**RE: REGIONAL CHAIRMAN'S COMMITTEE ON WASTE MANAGEMENT - FOLLOW-UP
FROM MARCH 14, 1991 PRESENTATION - BIOMEDICAL WASTE MANAGEMENT**

I must sincerely apologize for this late response to you. As you are aware, at the March 14, 1991 meeting of the aforementioned committee I gave a presentation on current provincial regulatory initiatives in the area of biomedical waste management. I agreed to provide a number of documents to you for attachment to the minutes.

Enclosed please find one copy of:

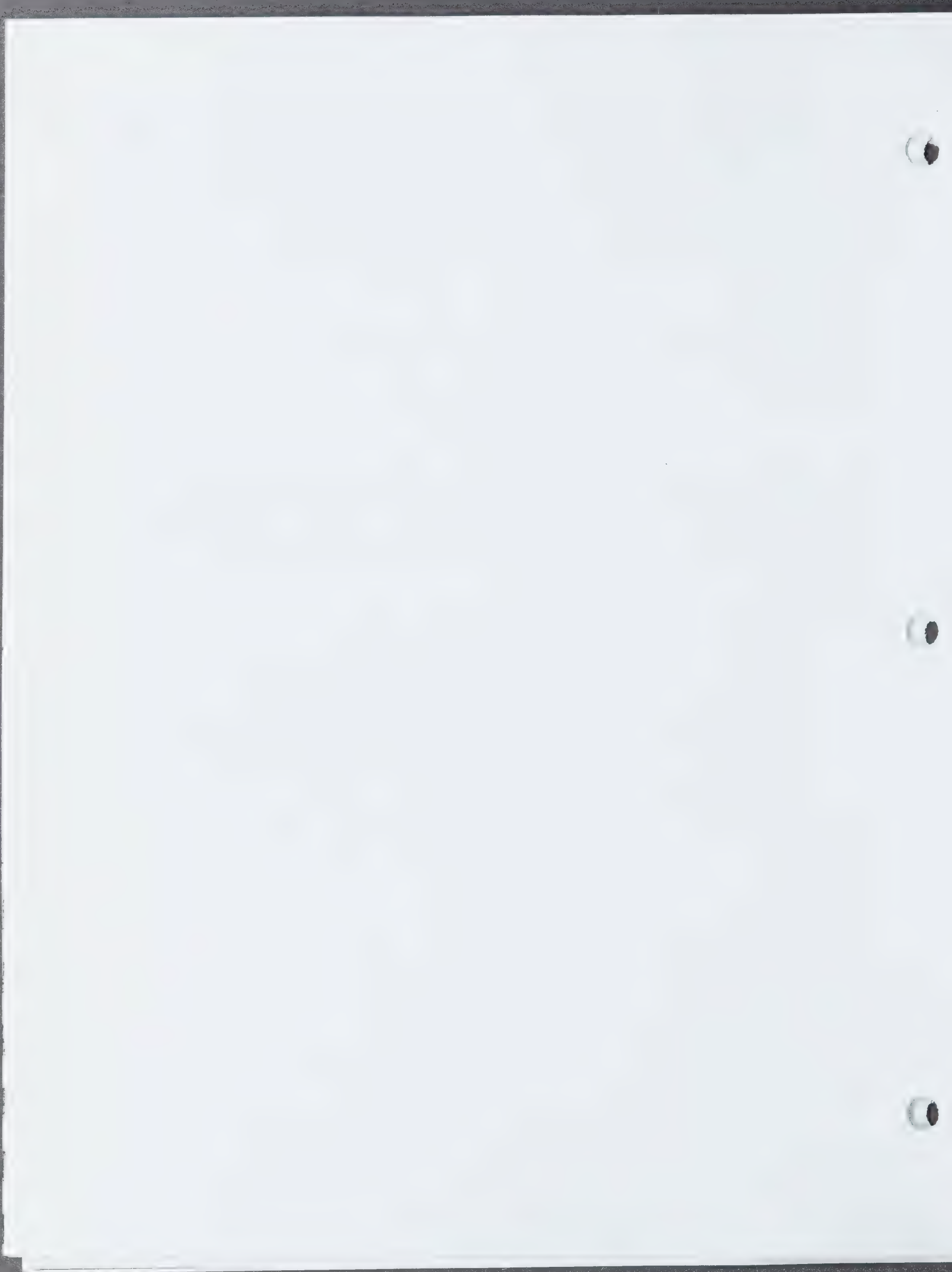
1. The CCME definition of biomedical waste, January 25, 1991.
2. The draft Ontario definition of biomedical waste proposed for implementation in Regulation 309.
3. A general paper entitled, "Biomedical Waste Management, Understanding Legislative and Regulatory Requirements", October, 1990.
4. The Summary Report issued by this Ministry's Air Resources Branch on the Biomedical Waste Incinerator Testing Program in July 1990.

Should you require any further information as a result of my presentation, please do not hesitate to contact me.

Sincerely,

L.M. Matthews
Project Specialist
Special Waste Policy and Programs

Encl.
LMM/
c.c. R. Stewart



BIOMEDICAL WASTE MANAGEMENT

UNDERSTANDING THE LEGISLATIVE AND REGULATORY REQUIREMENTS

SPECIAL WASTE POLICY AND PROGRAM UNIT

WASTE MANAGEMENT BRANCH

ONTARIO MINISTRY OF THE ENVIRONMENT

OCTOBER, 1990

BMW 00-02

1.0 INTRODUCTION

What is biomedical waste? The hospital administrator, nurse, sanitation collector, landfill operator, regulator, and general public have had different views on the nature and hazards of waste originating from health care activities. A common interpretation is that biomedical waste is all waste generated by health care facilities except for kitchen and office waste. Another interpretation is that biomedical waste is waste that, due to the potential risk for infection or disease transmission, requires treatment or destruction.

This paper outlines the current regulatory requirements under which pathological waste (hereafter referred to as biomedical wastes) is to be managed in Ontario. A 1986 Ministry report entitled "Guidelines for the Handling and Disposal of Biomedical Wastes from Health Care Facilities and Laboratories" is provided as an appendice and provides detailed information on the handling and packaging of biomedical waste. This report requires updating to reflect current management practises. Upon the development and promulgation of a new waste definition of pathological waste under Ontario Regulation 309, the report will be revised.

2.0 ENVIRONMENTAL PROTECTION ACT

The purpose of the Environmental Protection Act (EPA) is to provide for the protection and conservation of the natural environment. The basic thrust of the EPA is to prohibit any emission or discharge of a contaminant into the natural environment (air, water, land) that causes or is likely to cause adverse effects. The EPA also specifically prohibits any contaminant discharge in an amount, concentration, or level in excess of that prescribed by regulations made under the EPA.

The EPA is divided into a number of "Parts", with waste management activities covered under Part V. Regulations, such as regulation 309, may be enacted under the EPA to complement Part V.

2.1 PART V

The use of Certificates of Approval (C of A's) are the principle mechanism in which waste management activities are approved to operate in Ontario. Under Part V, Section 26, "no waste management system that is in operation or waste disposal site that is in use....shall be operated or used,

- a) after a Certificate of Approval has been refused; or
- b) where a Certificate of Approval or provisional Certificate of Approval has been issued, except in accordance with the terms and conditions of such Certificate".

In addition, under Section 27,

"No person shall use, update, establish, alter, enlarge or extend,

- a) a waste management system; or
- b) a waste disposal site;

unless a Certificate of Approval or provisional Certificate of Approval has been issued by the Director....."

A Part V C of A is therefore required for all waste disposal sites (such as an incinerator) and all waste management systems (such as collection and transportation). Waste disposal sites and systems are defined in the EPA as:

"Waste Disposal Site" means any land or land covered by water upon, into, in or through which, or building or structure in which, waste is deposited or processed and any machinery or equipment or operation required for the treatment or disposal of waste"

"Waste management system" means all facilities, equipment and operations for the complete management of waste, including the collection, handling, transportation, storage, processing and disposal thereof, and may include one or more waste disposal sites".

A C of A will specifically state the classes of waste that approval is granted, whether it be transport and/or disposal of waste. Pathological wastes are designated as Class 312 while pharmaceutical wastes are Class 261.

With respect to the on-site treatment (not disposal) of waste, such as an autoclave in a health care facility which is used only to treat waste generated on-site, a C of A is not required. This waste treatment operation is considered by the Ministry as "on-site treatment" of waste prior to final disposal. However, the transportation of the autoclaved waste would have to be carried out using an approved carrier for that waste type.

Under Section 30 and 32 of Part V there are provisions for discretionary and mandatory public hearings upon receipt of an application for a C of A. Section 30 requires that a mandatory public hearing be held "for the disposal of hauled liquid industrial or hazardous waste....". Section 32 allows the Director to designate a hearing for a disposal site at his/her own discretion.

Waste management undertakings may also be subject to the Environmental Assessment Act (EAA). The EAA requires a proponent to prepare a detailed assessment of the purpose, rationale, alternative methods, alternatives to the undertaking, as well as a description of the environmental effects and actions necessary to prevent, change, mitigate, or remedy the effects that may be expected. Social impacts must also be addressed. The EPA Part V approval is principally a technical review, with public consultation, of the proposed undertaking.

The Ministry's current policy is to apply the EAA to any new biomedical waste incinerator with a capacity of 10 tonnes/day or greater. Any proposed biomedical waste incinerator with a capacity of < 10 tonnes/day, would be subject to a mandatory public hearing under Part V of the EPA. It should be noted, however, that the Minister has the discretionary authority to bump up and designate a biomedical waste incinerator < 10 tonnes/day to be approved under the EAA.

The replacement of an existing biomedical waste incinerator, or any new incinerator to be used for disposing on-site waste only, may be subject to a discretionary hearing under Part V.

Section 40 of Part V outlines the ownership of waste, effect of contract, liability etc. and should be reviewed by waste generators to become aware of the regulatory framework and implications arising from transferring waste using commercial haulers and/or commercial disposal sites.

2.2 PART IX

Part IX deals with spills, and "when used with reference to a pollutant, means a discharge,

- i) into the natural environment,
- ii) from or out of a structure, vehicle or other container, and
- iii) that is abnormal in quality or quantity in light of all the circumstances of the discharge".

Section 80 of this Part also requires that every person having control of a pollutant that is spilled and causes or is likely to cause an adverse effect, to notify the Ministry, the municipality and the owner of the pollutant. In addition, under Section 81, there is a duty to act requirement that everything practical be done to prevent, eliminate and ameliorate the adverse effect and to restore the natural environment.

The Minister, under Section 85, also has very broad powers to order individuals to undertake actions to reduce adverse effects resulting from spills.

2.3 PART XIV

This part, entitled Miscellaneous, contains a number of sections dealing with offences under the Act or any regulation. Fines and/or imprisonment, depending on the offence and number of convictions, are outlined.

Section 147 specifies penalties where hauled liquid industrial waste or hazardous waste is involved. An individual is liable upon a conviction to a fine (and/or imprisonment) of up to \$50,000/day, while a corporation is subject to a fine of up to \$1,000,000/day. These maximum fines/penalties are based on offences that resulted in an adverse environment effect. Convictions that are based on offences that may result in an adverse environmental effect, have lower fines and penalties.

2.4 REGULATION 308/SECTION 8

Regulation 308 is known as the general air pollution regulation. The philosophy of this regulation is to control air pollution based on the concentration of a contaminant at its point of impingement (normally ground level).

The regulation requires that the concentration of a contaminant at a point of impingement should not to exceed the maximum level specified by the regulation. This concentration can be calculated in accordance with mathematical models (for approving new facilities) or the ambient air can be measured using air monitoring equipment (existing facilities).

In addition, the regulation also requires that no person shall discharge any visible emission which, in the opinion of a trained provincial officer, exceeds a "Visible Emission chart" (consists of varying densities of black dots or lines on a white background).

A Certificate of Approval under Section 8 of the EPA is also required for any contaminant discharged into the air. The Regulation 308 dispersion models are used as part of the approval review process, to ensure point of impingement concentrations are met in the design of any facility. Any modifications to an existing structure or piece of equipment which may change or alter emissions also requires an amendment to this Certificate.

For new municipal and biomedical waste incinerators, the installation of best available control technology (BACT) is now required. (See Section 5.1)

3.0 REGULATION 309

Regulation 309 is the principal form of control for the management of wastes in Ontario. The regulation requires hazardous and liquid industrial waste generators who dispose of wastes off-site to register and transport their waste using a cradle-to-grave waste tracking system to ensure wastes are properly transported and disposed.

The regulation is structured as follows:

<u>Section(s)</u>	<u>Description</u>
1	Definition of Terms
2-3	Designation and Exemption of Wastes
4-7	Classification and Exemption of Waste Disposal Sites and Waste Management Systems.
8-12	Standards for Waste Disposal Sites.
13	Standards for Waste Management Systems.
14	Management of Asbestos Waste.
15	Generator Registration.
16-24	Manifests (Generator and Carrier Requirements).
25	On-Site Incinerator Exemption.
26	Existing Hospital Incinerator Exemptions.
27-39	CFC Management

<u>Section(s)</u>	<u>Description</u>
Schedules 1-4	Hazardous Waste Listings and Leachate Extraction Procedure.

Hazardous wastes are defined in the regulation by a testing and listing approach. Hazardous wastes are defined as follows:

- i) hazardous industrial waste (schedule 1)
- ii) acute hazardous waste chemical (schedule 2A)
- iii) hazardous waste chemical (schedule 2B)
- iv) severely toxic waste (schedule 3)
- v) ignitable waste (test)
- vi) corrosive waste (test)
- vii) reactive waste (test)
- viii) radioactive waste (except radioisotope wastes under AECS control)
- ix) pathological waste
- x) leachate toxic waste (test and schedule 4)
- xi) PCB waste (defined under Regulation 11/82)

3.1 PATHOLOGICAL WASTE

Pathological waste is by definition a hazardous waste, and is specifically defined in this regulation as follows:

- i) any part of the human body including tissues and bodily fluids, but excluding fluids, extracted teeth, hair, nail clippings and the like, that are not infectious,
- ii) any part of the carcass of an animal infected with a communicable disease or suspected by a licensed veterinary practitioner to be infected with a communicable disease, or
- iii) non-anatomical waste infected with communicable disease;

This definition is not precise on what constitutes infectious or communicable diseased wastes. Further guidance can be found in the 1986 MOE report entitled "Guidelines for the Handling and Disposal of Biomedical Wastes from Health Care Facilities and Laboratories". In this document, communicable diseases are defined as those contained in schedules of the Ontario Health Protection and Promotion Act 1983 and the Canada Animal Disease and Protection Act.

This guideline document also states that for waste to be classified as "infectious", waste should not merely contain pathogens but should also be capable of transmitting disease. An understanding of the factors necessary for transmission of disease is useful. The following factors have been identified by infection control specialists and must all be present for disease to be transmitted.

1. presence of a pathogen of sufficient virulence.
2. dose
3. portal of entry
4. resistance of host

Due to the inherent difficulties in defining the term "infectious" and applying the four factors above, the identification and segregation of infectious waste is difficult and has not been applied consistently. It is recommended that a health care professional (e.g. doctor, nurse, infection control specialist) or committee at the individual facility evaluate their wastes to determine which should be managed as infectious wastes. The 1986 guideline document also provides some specific guidance on wastes that are commonly contaminated or considered infectious.

The current definition in Regulation 309 needs to be revised. The definition is not only of concern to generators, but as a regulator, it has also made the task of prosecution and conviction difficult. In the courts, it is difficult to prove a waste material is infectious, since there are no analytical tests that can be performed that definitively classify a material as infectious.

It is for two reasons, namely (i) to have a definition that is clear and precise for generators to segregate wastes, and (ii) to have a definition that is enforceable, that has led to the decision by MOE to initiate a revision of the current definition under Reg. 309. It is likely that the new revised definition would be changed from the term "pathological" to "biomedical" to avoid confusion since most jurisdictions and health care users now commonly use the biomedical waste term.

3.2 SUBJECT WASTE

As a waste generator, you have a responsibility to determine if your wastes are biomedical (pathological), and therefore hazardous, under Reg. 309. Having carried this process out and identified wastes as biomedical, the next step is to determine if your biomedical wastes are further defined as subject wastes.

Subject wastes are defined in the regulation to classify those wastes that must be "registered" and "manifested" when transported. Registration and manifest requirements are described in detail in section 3.5 of this paper.

An exemption of a waste from the subject waste designation is not an exemption from all other requirements of Regulation 309 or the EPA. Any generator of biomedical waste whose waste is exempted from the subject waste requirements is still responsible to ensure that wastes are properly transported and disposed using carriers and disposal sites with valid Certificates of Approval. This subject waste exemption is a paperwork exemption only.

Subject waste is defined as:

- i) liquid industrial waste, and
- ii) hazardous waste

and does not include waste from:

1. a nursing home under the Nursing Homes Act
2. a home under the Homes for the Aged and Rest Homes Act
3. a home for special care under the Homes for Special Care Act
4. the professional office of a member of the Royal College of Dental Surgeons of Ontario, or
5. the professional office of a member of the College of Physicians and Surgeons of Ontario.

3.3 REGULATION 309 AND PART V EXEMPTIONS

A number of wastes, waste disposal sites, and waste management systems are exempt from Reg. 309 and Part V (Certificates of Approval) of the EPA. These exemptions are:

Wastes:

- agricultural, condemned animals (licensed meat plants) and dead animals (Dead Animal Disposal Act)

Waste Disposal Sites:

- On-site veterinary hospital incinerators, crematorium incinerators.

Waste Management Systems: (exempt Part V only)

- Waste generation facilities are exempt in respect of the production, collection, handling and temporary storage of subject waste.

3.4 GENERATOR REGISTRATION

Every generator of subject waste must submit an initial generator registration report for each facility where subject waste is produced. The MOE will process these applications and provide a generator registration number for the facility and wastes produced at that facility. Every generator is:

- i) to keep a record (up to 2 years) of the subject waste disposed of at the waste generation facility.
- ii) report orally to the MOE any transferred subject waste that he/she is not able, within 4 weeks, to confirm was delivered to the intended receiver.

3.5 MANIFESTS

A six part manifest form is used to track wastes from generator to receiver. Only approved carriers are provided with manifest forms by the MOE. Upon pick-up of the waste, the carrier will give the intact manifest form to the generator to fill out Part A. Two copies of the manifest are removed by the generator, the remaining four part form is retained by the carrier. The generator must return one manifest copy to MOE within three working days.

Upon transfer of the waste from carrier to receiver, the carrier fills out Part B of the manifest and gives all manifest copies to the receiver to fill out Part C.

The carrier retains one completed copy (2 years retention) while the receiver returns one copy to MOE, one copy to the generator, and retains the last copy for record keeping (2 years).

The MOE maintains a computerized tracking system to ensure all wastes are transported to their approved final destination. By matching up manifest copies received from the generator to copies received from the receiver any inconsistencies can be followed up by MOE staff.

4.0 PACKAGING AND TRANSPORTATION

Biomedical wastes should always be segregated, packaged, and colour coded to facilitate further handling, transportation, and disposal. The 1986 guideline document provides detailed information in this regard.

An area that has received much attention lately is the potential requirements of packaging and transportation under Federal Transport Canada's Transportation of Dangerous Goods Act (TDGA).

Currently, a proposal is under review by Transport Canada to amend Schedule "L" of the Act to create a new biomedical waste class complete with specific packaging and transport requirements.

Generators and carriers have raised their concern that inconsistencies between various Federal and Provincial legislation would create confusion and hardship. Provincial representatives have met with Environment Canada and Transport Canada to discuss these initiatives.

It should be noted that Reg. 309 states that the requirements of the TDGA must be met prior to the transport of biomedical wastes. Ontario's current biomedical waste requirements do not conflict with the TDGA for packaging and manifesting.

5.0 TREATMENT AND DISPOSAL

Biomedical waste is treated and disposed according to whether its anatomical or non-anatomical. All human or animal anatomical waste is to be incinerated while non-anatomical wastes can be incinerated or autoclaved. Blood and body fluids are to be considered non-anatomical for the purposes of treatment and can therefore be autoclaved.

The discharge of blood and bodily fluids to the sanitary sewer (never the storm sewer) is practised but is not recommended due to the high biological oxygen demand (BOD) and its effect on the sewage treatment plant operation. The local municipal sewer-use by-law governs whether blood and body fluid discharge is permissible. Although non-infectious fluids can be safely discharged into sewers, the possibility of unknowingly discharging contaminated blood (HIV, Hepatitis B) should be carefully considered by generators. In addition, the MOE is currently reviewing municipal discharges to sanitary sewers under the Municipal-Industrial Strategy for Abatement (MISA) and a regulation may prohibit such practices in the future.

5.1 INCINERATION

Incineration has been the preferred option of generators in Ontario for disposing of biomedical wastes. Its advantages include the disposal of both anatomical and non-anatomical waste, a volume and weight reduction, and the complete destruction of pathogenic materials. Its principal disadvantage is that incineration can release toxic contaminants into the air during the combustion process if not properly controlled.

Any new incinerator that is to be constructed in Ontario now requires that Best Available Control Technology (BACT) is installed. The MOE has two policies (01-01, 01-03) which currently define the air pollution control (stack emissions) and the design and operating requirements (temperature, residence time, stack tests). Typically, a

new biomedical waste incinerator must be operated at a minimum of 1000°C, with a 1 second retention time in the 1000°C combustion zone. A particulate loading of 20 mg/m³ and hydrogen chloride (HCl) gas removal of 90% (or 30 ppm) must be achieved by new incinerators.

The public acceptance to a new incineration facility is an important siting consideration. A good public consultation program is needed to allow the community to participate in the early planning stages of these facilities.

5.2 STEAM AUTOCLAVING

Historically, autoclaving has been used as a treatment method in laboratory settings to sterilize microbiological cultures. Autoclaving is a process by which wastes are subject to steam and pressure to sterilize wastes prior to landfill disposal. Biological indicators (*Bacillus stearothermophilus*) are utilized to verify pathogens are destroyed. Only non-anatomical wastes can be treated using this technology.

The rendering of infectious materials non-infectious in an autoclave is dependent upon the temperature to which the waste is subjected as well as the duration of exposure. Typical time and temperature guidelines (vacuum autoclaves) for achieving sterilizing conditions throughout bags of biomedical wastes are as follows:

<u>Bag Size</u>	<u>Temp (°C)</u>	<u>Pressure (lb)</u>	<u>Time (hr)</u>
12" x 24"	121	15	1
23\4" x 30"	131	30	1
larger	135	—	1

Special consideration should be given to the type of plastic bag used in an autoclave. Some bags impede steam penetration and still others will simply melt. The bags and operation of the autoclave should be assessed under actual working conditions using biological indicators inside the bags to verify their effectiveness.

The major advantages of autoclaving are its on-site capability since a single unit can be easily located without the space requirements of incineration systems, and that minimal air pollutants are emitted.

The major disadvantage is the fact that autoclaved wastes are recognizable. Landfill refusals of autoclaved wastes have occurred because landfill operators either could not distinguish whether the waste had been treated or not, or the waste was simply refused on the grounds of its appearance. To avoid this problem, hospital administrators should work closely with landfill operators to explain their waste treatment procedures. Autoclaved waste should be clearly labelled to indicate the waste has been decontaminated. Some form of shredding after treatment would alleviate these concerns. While "dressing up" autoclaved wastes to make them more appealing is questionable, it is a viable option to consider to ensure that treated wastes are accepted by landfill operators.

Historically, the difficulties of operating autoclaves have led to a reluctance to utilize this technology, other than as a backup treatment system. The improvements in this technology, however, have resulted in more frequent use, particularly in the United States. The use of on-site autoclave/compaction technologies are very popular in California, where over 100 units are currently in operation (compaction achieves 60% volume reduction).

5.3 MECHANICAL/CHEMICAL DISINFECTION

Chemical disinfection such as chlorine have been used for some time to disinfect medical products. Most recently, the Hospital Council of Metropolitan Toronto (HCMT) have installed a shredding/disinfection system to test whether this technology is suitable for the treatment of non-anatomical wastes in Ontario. A separate speaker will discuss this technology in more detail.

The use of chemical disinfection processes are most appropriate for liquid wastes. The use of disinfectant solutions to treat solid wastes requires that it be demonstrated through the development of a biological testing program and monitoring on a routine basis, until the technology is proven.

A common practice of small generators is to treat sharps by soaking them in a sodium hypochlorite (bleach) solution to render them non-infectious. This treatment is not considered an effective decontamination procedure since only the surface of the sharp has been exposed to the disinfectant. The sharp may still be potentially infectious by a needlestick injury. The only effective treatment for sharps is to autoclave or incinerate.

In the absence of any disposal or treatment facilities, sharps should be contained in hard-shell containers and disposed uncompacted into a landfill. Landfill operators should be contacted to determine their willingness and procedures to accept these wastes.

CONCLUSION

All waste originating from health care facilities has, at times, been viewed by the public and some landfill operators as hazardous due to its perceived infectious nature. In fact, the majority of health care waste is very similar to domestic waste that is generated by homeowners.

Health care wastes are not all hazardous and should not be managed as such. Through proper waste segregation, wastes that do not pose a hazard can be subjected to the 3R's (reduction, recycle, and re-use) and both economic and environmental benefits can be obtained.

BB/ag
January 4, 1991
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ONTARIO MINISTRY OF THE ENVIRONMENT
WASTE MANAGEMENT BRANCH
PROPOSED DEFINITION OF BIOMEDICAL WASTE

Biomedical Waste means waste that is generated by human or animal health care facilities, medical research and medical teaching establishments, health care teaching establishments, clinical testing or research laboratories, mortuaries, funeral establishments and facilities involved in the production and testing of vaccines;

and includes:

- (a) human anatomical waste consisting of human tissues, organs and body parts, not including teeth, hair and nails;
- (b) animal waste consisting of all tissues, organs and body parts, carcasses, bedding, fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood, body fluids removed for diagnosis or removed during surgery, treatment or autopsy, unless certified by the generator that the waste does not contain the viruses and agents listed in Risk Groups II, III and IV of the Medical Research Council of Canada "Laboratory Biosafety Guidelines" (Cat. No. MR 21-1/1990E), but not including teeth, hair, nails, feathers or hooves;
- (c) non-anatomical waste consisting of:
 - i) cultures, stocks or specimens of microorganisms, live or attenuated vaccines, human or animal cell cultures used in research, and, material that has come into contact with the above,
 - ii) human fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood, and body fluids removed for diagnosis or removed during surgery, treatment or autopsy, but not including urine and feces,
 - iii) sharps consisting of needles, syringes, blades or laboratory glass capable of causing punctures or cuts;
- (d) special precaution waste consisting of all waste which has come into contact with an individual being treated or suspected to be infected with one or more of the viruses or agents listed in Risk Group IV of the Medical Research Council of Canada "Laboratory Biosafety Guidelines" (Cat. No. MR 21-1/1990E);
- (e) other waste not included above which, at the discretion of a medical practitioner, nurse or other health care provider, are deemed to require special handling;

but does not include waste that is:

- i) from animal husbandry,
- ii) household in origin,
- iii) controlled in accordance with the Animal Disease and Protection Act (Canada), the Dead Animals Disposal Act (Ontario), Meat Inspection Act (Ontario), and the Meat Inspection Act (Canada),
- iv) generated in food production, general building maintenance or office administration of the aforementioned facilities.

This definition does not apply to non-anatomical waste listed above which has been disinfected or decontaminated through a treatment process recognized by the Director, Waste Management Branch, Ontario Ministry of the Environment.

January 25th, 1990

CCME DEFINITION OF BIOMEDICAL WASTE

"Biomedical Waste" means waste that is generated by human or animal health care facilities, medical research and medical teaching establishments, health care teaching establishments, clinical testing or research laboratories and facilities involved in the production or testing of vaccines;

and includes:

- (a) human anatomical waste consisting of human tissues, organs and body parts, but not including teeth, hair, and nails;
- (b) animal waste consisting of all tissues, organs, body parts, carcasses, bedding, fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood, and body fluids removed for diagnosis or removed during surgery, treatment or autopsy, unless certified by a trained person that the waste does not contain the viruses and agents listed in Risk Group 4 of the Medical Research Council of Canada "Laboratory Biosafety Guidelines" (Cat. No. MR 21-1/1990E), but not including teeth, hair, nails, hooves and feathers;
- (c) non anatomical waste consisting of:
 - i) cultures, stocks or specimens of microorganisms, live or attenuated vaccines, human or animal cell cultures used in research and laboratory material that has come into contact with the above;
 - ii) human fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood, and body fluids removed for diagnosis or removed during surgery, treatment or autopsy, but excluding urine or feces.
 - iii) sharps consisting of needles, syringes, blades or laboratory glass capable of causing punctures or cuts,

but does not include waste: from animal husbandry or household in origin, controlled in accordance with the Animal Disease Protection Act (Canada), or generated in the food production, general building maintenance and office administration of the above.

This definition does not apply to the non-anatomical waste listed above provided that these wastes have been disinfected or decontaminated.

BIOMEDICAL WASTE INCINERATOR TESTING PROGRAM
SUMMARY REPORT

JULY 1990



Ontario

Environment
Environnement

Jim Bradley, Minister/ministre

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BIOMEDICAL WASTE INCINERATOR TESTING PROGRAM
SUMMARY REPORT

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JULY 1990



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BIOMEDICAL WASTE INCINERATOR TESTING PROGRAM

SUMMARY REPORT

Introduction:

There are currently 122 biomedical waste incinerators (BWIs) located on hospital premises in Ontario, burning general hospital and pathological waste. The waste contains variable quantities of chlorinated plastics which may generate hydrogen chloride and chlorinated toxic organics during burning. The air emissions and ash from these incinerators could also contain heavy metals, microorganisms, radioactive compounds, mutagenic compounds and products of incomplete combustion such as carbon monoxide, polyaromatic hydrocarbons (PAHs).

Biomedical waste incinerators in Ontario are small and are either batch or semi-continuously fed two-chamber types. All of them are equipped with either afterburners or secondary stage burners to keep the combustion gas at 1000°C for 1/2 second.

There is a lack of emission data pertaining to biomedical waste incinerators worldwide. The Ontario Ministry of the Environment (MOE) has initiated an extensive testing and evaluation program to generate the needed emission data for these facilities. Except for data generated in this program, there are no other air emission data for toxic pollutants from biomedical waste incinerators in Ontario.

The stack and ash sampling, and process observation component of this program was done under contract. Seven incinerators were selected for testing under this program. The consultant's final report is under preparation. This report is a summary presentation of the results and discussion of the testing carried out at five of the incinerators.

Program Description:

The selection of incinerators was based on technology in use, mode of operation and waste composition; the incinerator site being centrally located to facilitate transport of equipment to the site, and the collected samples to the ministry laboratories; and easy accessibility at the selected site. For these reasons, the five hospital incinerators tested were selected in the Toronto area and vicinity, and represented the typical configuration and operation of these units across the Province.

The selected incinerators were of batch or semi-continuous feed design, and burnt wastes of different plastic content. Two

incinerators were equipped with either a dry scrubber/baghouse or a liquid scrubber. The removal efficiencies of these air pollution controls for selected air pollutants were also measured.

Five classes of air pollutants were sampled at each incinerator, using separate sampling trains/systems for each class;

1. Semivolatile organics such as dioxins (PCDDs), furans (PCDFs), polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), chlorophenols (CPs) and chlorobenzenes (CBs). Selected sample extracts were tested for mutagenic activity.
2. Volatile organics.
3. Particulate loading, trace metals and gross radiation count.
4. Microorganisms, including bacterial counts and *Bacillus Cereus* spore spiking of the incinerators.
5. Gaseous pollutants including hydrogen chloride (HCl), nitric oxide (NO), sulphur dioxide (SO₂), carbon monoxide (CO), carbon dioxide (CO₂), oxygen (O₂) and total hydrocarbons (THCs).

The biomedical waste incinerator testing program was divided into four phases. Field testing of five incinerators was completed as part of the first two phases. Two sets of tests (a,b) were carried out at one of the tested incinerators (site 4) in the second phase to examine the effect of increased plastics in the waste on air emissions. The testing of two incinerators with air emission control systems at: St. Joseph's Hospital, Sarnia and DECOM facility, Gatineau, Quebec, was carried out in phases 3 and 4. These results were not available to be included in this summary report.

The five incinerators tested in phases 1 and 2 are located at the following sites:

York Central Hospital, Richmond Hill	site 1
Humber Memorial Hospital, Weston	site 2
Women's College Hospital, Toronto	site 3
Toronto Western Hospital, Toronto	site 4(a & b)
Oakville-Trafalgar Hospital, Oakville	site 5

These site numbers are used throughout the report to identify the incinerators at these sites.

Laboratory Services Branch coordinated the analytical work and provided the majority of chemical and biological analyses. Zenon Analytical Services performed the analyses for volatile organics. Clayton Environmental Consultants carried out stack sampling, and

process observation. The Air Resources Branch provided continuous emission monitoring (CEM) and the overall program coordination. The Radiation Protection Laboratory of the Ministry of Labour carried out the radiation measurements.

Sampling and Analyses:

Stack sampling was carried out in accordance with the Ontario Source Testing Code (1): sampling locations were at sufficient distances from obstructions and bends for the collection of representative samples: isokinetic multipoint sampling was carried out in the case of particulate pollutants: the operation of the incinerators was monitored during the tests.

A Method 5 sampling train of the Ontario Source Testing Code was modified for sampling of specific classes of pollutants. All sampling train components were calibrated, prewashed and proven prior to field sampling.

A condenser containing an XAD trap was inserted between the filter and impingers of the Method 5 train for semivolatile organics. All internal surfaces of the train in contact with the extracted samples were lined with glass except for the nickel plated sampling nozzle. An expanded ASME protocol (2) was followed in the analysis of the collected samples.

An aliquot of the initial sample extract of one out of the three tests on each incinerator was tested for mutagenic activity. The Ames Salmonella mutagenicity test was used as a screen for mutagenic activity in emission and ash samples. Each Ames test was conducted with strains TA 98 and TA 100 both with and without metabolic activation (S-9). Measurement of activity in any strain combination was considered detection of mutagenicity.

Volatile organics, with boiling points of less than 150°C were sampled with a volatile organic sampling train (VOST) following the slow-VOST procedure (3). Samples were extracted at a point of average stack gas velocities for 40 minutes at 0.5 l/minute.

Water, nitric acid and potassium permanganate were placed in the impingers of the Method 5 sampling train for particulate, hydrogen chloride, mercury and other trace metals(4). Alpha, beta and gamma activities of the samples were measured as soon as possible after the sample collection. The samples were then subjected to a semiquantitative elemental scan using direct current plasma.

In order to prevent dehydration of bacteria during sampling, the filter was omitted from the Method 5 sampling train for microorganisms (5). A buffer consisting of K_2HPO_4 and KH_2PO_4 was placed in the impingers. Substrates containing *Bacillus Cereus* spores were mixed with waste prior to burning in the incinerators.

All continuous emission monitors for opacity and gaseous pollutants were used in accordance with either the Ministry's guidelines or the U.S. Environmental Protection Agency guidelines or the manufacturers instruction manuals.

A sample extraction probe with a coarse particulate filter was used for gas sampling. Additionally a fine particulate filter preceded the THC and HCl analyzers.

Three separate heated sampling lines were used. One led to a flame ionization analyzer for THC's. The second led to heated impingers containing concentrated sulphuric acid for water removal, then to a nondispersive infrared absorption analyzer with a correlation gas filter for HCl measurement. The third led to a condenser (for water removal) then branched into five analyzers working on the following principles: paramagnetic resonance for O_2 , chemiluminescence for NO_x , nondispersive ultraviolet absorption for SO_2 and nondispersive infrared absorption for CO and CO_2 .

Provisions were made for injection of certified calibration gases at points prior to the coarse filter and before each analyzer.

Description of incinerators:

Incinerator 1 is a two-stage Plibrico batch unit designed to burn 750 kg of biomedical waste per batch; its primary chamber is operated in the excess air mode. Anatomical waste is incinerated in a pathological chamber with a separate burner located within the primary chamber. An afterburner is installed in a horizontal flue duct.

Incinerator 2 is a two-stage Plibrico, excess air batch unit. Its primary chamber contains a separate small chamber with an additional burner for incineration of pathological waste. The secondary chamber is a vertical flue duct with an afterburner. This incinerator is designed to burn 850 kg of waste per batch.

Incinerator 3 is a Trecan Combustion's semi-continuous feed two-chamber, controlled air model Trecare II, designed to burn 160 kg/h of biomedical waste or 55 kg/h of pathological waste. The primary chamber is operated under starved air condition.

Incinerator 4 is a controlled air, two-chamber Consumat C-325 semi-continuous feed unit, designed to burn 267 kg/h of biomedical waste. The primary chamber is presently operated with excess air.

Incinerator 5 is a Francis Hankin two stage excess air batch unit. The incinerator is equipped with a pathological chamber, physically separated from the incinerator, with a burner and a flue duct connected to the primary incinerator chamber.

Results:

The results indicate that for the five biomedical waste incinerators tested, the air emissions greatly depend on whether the unit is of the batch or semi-continuous feed design. The time-emission patterns of gaseous pollutants and the particulate emission rates measured for the two designs are different in shape.

Typical plots of continuously monitored levels of opacities and CO in the stack emissions of a batch type Incinerator 2 and a semi-continuously fed Incinerator 3 are shown in Figures 1 and 2.

For Incinerator 2, peaks of high levels of both pollutants were recorded at the start of the burn. The levels stayed low for the rest of the batch until approximately four hours after start-up when they started to rise again as a result of shutting off the afterburner. Similar patterns were recorded at the other two batch Incinerators 1 and 5.

At the semi-continuously fed Incinerator 3, the peaks occurred more frequently throughout the testing period, with significantly higher opacity levels in comparison to Incinerator 2. The occurrence of opacity peaks at Incinerator 3 coincided with the waste pushes into the incinerator.

The emission patterns of CO and opacities at the other semi-continuously fed Incinerator 4 were similar to those shown in Figures 1 and 2.

The average stack levels of selected pollutants are shown in Tables 1, 2, 3 and 4. Significantly higher levels of most pollutants were measured at the two semi-continuously fed Incinerators 3 and 4 in comparison to the tests carried out at the batch Incinerators 1 and 2.

TABLE 1: Average Stack Concentrations Measured by Continuous Emission Monitors

Incinerator Site	NO (mg/m ³)	CO (mg/m ³)	THC (ppm)	SO ₂ (mg/m ³)	HCl (mg/m ³)
1	90	49	3	68	600
2	80	118	18	69	757
3	119	47	16	76	2090
4a	65	126	9	107	1010
4b	96	102	4	105	699
5	74	123	10	68	2250
MOE Regulation 308 standard			100		50*

* MOE Policy for new incinerators

TABLE 2: Average Stack Concentrations of Organics Based on Three Tests.

Incinerator Site	PAH (ug/m ³)	CB (ug/m ³)	PCB (ug/m ³)	CP (ug/m ³)
1	3	0.4	ND	NA
2	37	0.6	0.1	0.5
3	ND	22.6	1.2	87.5
4a	ND	6.3	0.5	NA
4b	ND	4.9	0.4	33.9
5	ND	4.0	0.2	14.8

ND= non detectable

NA= not available

TABLE 3: Average Stack Concentrations of Particulates and Metals Based on Three Tests.

Incinerator Sites	Particulates (mg/m ³)	Metals (Total) (mg/m ³)	Cadmium (mg/m ³)	Lead (mg/m ³)	Mercury (mg/m ³)
1	77	23	0.1	2.2	1.2
2	87	21	0.1	1.4	1.8
3	307	59	0.7	11.5	0.6
4a	619	98	0.7	10.5	1.1
4b	705	88	0.8	12.2	0.3
5	1210	52	0.2	5.5	0.9

MOE Policy for new incinerators. 20

TABLE 4: Average Stack Concentrations of Dioxins(And Furans) and Mutagenicity.

Incinerator Site	Dioxin Total (ng/m ³)	Dioxin Toxic Equivalents ¹ (ng/m ³)	Mutagenicity Stack (rev*/m ³)	Mutagenic Density/Ash (rev*/m ³)
1	34	0.9	3300	101
2	263	6.9	(10694)**	299
3	685	19.7	(3248)**	206
4a	909	32.5	ND	4094
4b	1024	33.1	(169)**	242
5	1346	52.4	(3293)**	902

1= Equivalents calculated using the international toxicity equivalency factors NATO/CCMS, Report no. 176/1988a.

*rev= revertants

()**= values may be overestimates.

Tests with different waste fed to Incinerator 4 showed somewhat higher stack levels of most measured pollutants in tests 4b when the waste contained more plastics.

However, the highest stack concentrations measured in the program were those at the batch Incinerator 5. The reason for these higher emissions is unknown except that this particular batch type incinerator is of a different make than the other two batch Incinerators 1 and 2

A summary of the results of Ames testing of the six incinerator samples is shown in Table 4. Positive results were obtained on the emission particulates from the Incinerators 1 and 2 and on the volatile portions of the organics emitted from the Incinerators 2, 3, 4b, and 5. No mutagenic activities were detected in either particulate or volatile fractions from the Incinerator 4a tests. Mutagenic activity was detected in the ash samples from all five incinerators.

No microorganisms were found in air emissions at any of the tested incinerators during or before incinerator operation. No spores of the challenge organisms were found in the ashes. Some bacteria were recovered from the ashes but this was likely related to the recontamination of the ash during the cool-down period. Bacteria similar to those in the ash were recovered from the samples of ambient air around the incinerators. Little clinical significance could be attached to any of the bacterial strain recovered. No radioactivity (alpha, beta or gamma activity) was reported to be present above the background levels on either particulates or impinger extracts of the collected stack samples.

The stack emissions from all five incinerators were subjected to dispersion calculation to compare the calculated levels at critical receptors with the MOE point of impingement (POI) standards and guidelines. The results are shown in Table 5.

TABLE 5: Calculated Point of Impingement Concentrations

Incinerator Site	Particulates (ug/m ³)	Dioxin (pg/m ³)	Lead (ug/m ³)	Mercury (ug/m ³)	HCl (ug/m ³)
1	11	0.5	0.3	0.2	87
2	14	7	0.2	0.3	50
3.	83	396	3.1	0.2	566
4a	9	23	0.2	<0.1	14
4b	12	27	0.2	<0.1	11
5	23	13	0.1	<0.1	42
MOE Reg. 308 Standards/Guidelines	(100)	(450)	(10)	(5)	(100)

The calculated POI concentration of HCl for the Incinerator 3 exceeded the MOE standard. The short stack height above the building at that site, and the proximity of the POI are the main causes of the elevated POI concentration. The hospital at that site has shutdown its incinerator and is investigating alternatives for disposal of the waste including ways to bring the incinerator into compliance with the HCl standard.

The results of the standard MOE leachate tests on the ash samples collected during stack tests are shown in Table 6.

TABLE 6: Summary of Ash Leachate Tests

Incinerator Site	Boron (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Lead (mg/l)	Chromium (mg/l)
1	4	0.2	<0.1	<0.1	<0.1
2	12	0.2	0.3	<0.2	<0.1
3	3	0.3	<0.2	0.4	2.1
4a	2	>6.1	<0.2	<0.7	<0.1
4b	1	1.1	0.3	<0.6	<0.1
5	<0.1	<0.1	<0.1	<0.1	<0.1
Schedule 4 (Reg 309) Criteria	5	1	0.005	0.05	0.05

The levels of metals in Table 6 are not exceeding the Regulation 309 Schedule 4 criteria by more than a factor of 100. If exceeded, the ash would be classified as a hazardous waste under this regulation.

Conclusions:

The levels of pollutants in both air emissions and ash in all the five tested hospital incinerators, with one exception, was found to be in compliance with the existing Ontario MOE point-of-impingement (POI) standards and guidelines. The one exception being that HCl emissions from the incinerator at site 3 resulted in a calculated POI concentration above the MOE standard of 100 ug/m³. The hospital at that site has shutdown its incinerator and is investigating alternatives for disposal of the waste including ways to bring the incinerator into compliance with the HCl standard.

The MOE ash leachate criteria were not exceeded in tests at any of the tested hospitals. All ash samples were found to be within the toxic leachate criteria under Regulation 309.

However, the Ministry policy 01-03, for new incinerators, stack concentrations limits for particulate and hydrogen chloride were exceeded for all incinerators tested, largely because of the lack of appropriate air pollution control equipment such as scrubbers followed by particulate removal devices.

The levels of particulate, metals, dioxins and furans and hydrogen chlorides at almost all hospital incinerators tested were higher than those measured at large well designed and operated municipal incinerators equipped with scrubbers and particulate removal devices (6). It must be pointed out, however, that because hospital incinerators are generally of small size (the largest unit tested have a capacity 6.4 tonnes per day), and shorter daily operation periods, the total amount of air pollutants emitted from a hospital incinerator would be expected to be much lower than that from most municipal incinerators.

An additional contributor to the high pollutant levels is unsteady combustion brought about by intermittent feeding of semi-continuously fed incinerators and bursts of incomplete combustion occurring immediately after igniting waste in fully loaded batch incinerators. Since these bursts of incomplete combustion occur more frequently at semi-continuously fed incinerators, the aggregate result over the test periods were higher pollutant levels in comparison to batch incinerators.

References:

1. Source Testing Code (Version #2), Ontario Ministry of the Environment November, 1980.
2. ASME (Draft) Protocol Sampling for the Determination of Chlorinated Organic Compounds in Stack Emissions, 1985.
3. Protocol for the Collection and Analysis of Volatile POHCs using VOST, E.P.A. Report 600-8-84-007, March 1984.
4. A Method to Measure Emissions of Particulate Matter, Metals and Hydrogen Chloride from Stationary Sources, Environmental Protection Service, Environment Canada, April 1985.
5. Stack Sampling Method (Draft) for Determination of Emissions of Microorganisms, Ontario Ministry of the Environment, 1988.
6. The National Incinerator Testing and Evaluation Program: Air Pollution Control Technology Report, EPS 3/UP/2, September 1986.

HOSPITAL NO. 2 INCINERATOR

February 10, 1968

HOSPITAL NO. 3 INCINERATOR

March 3, 1968

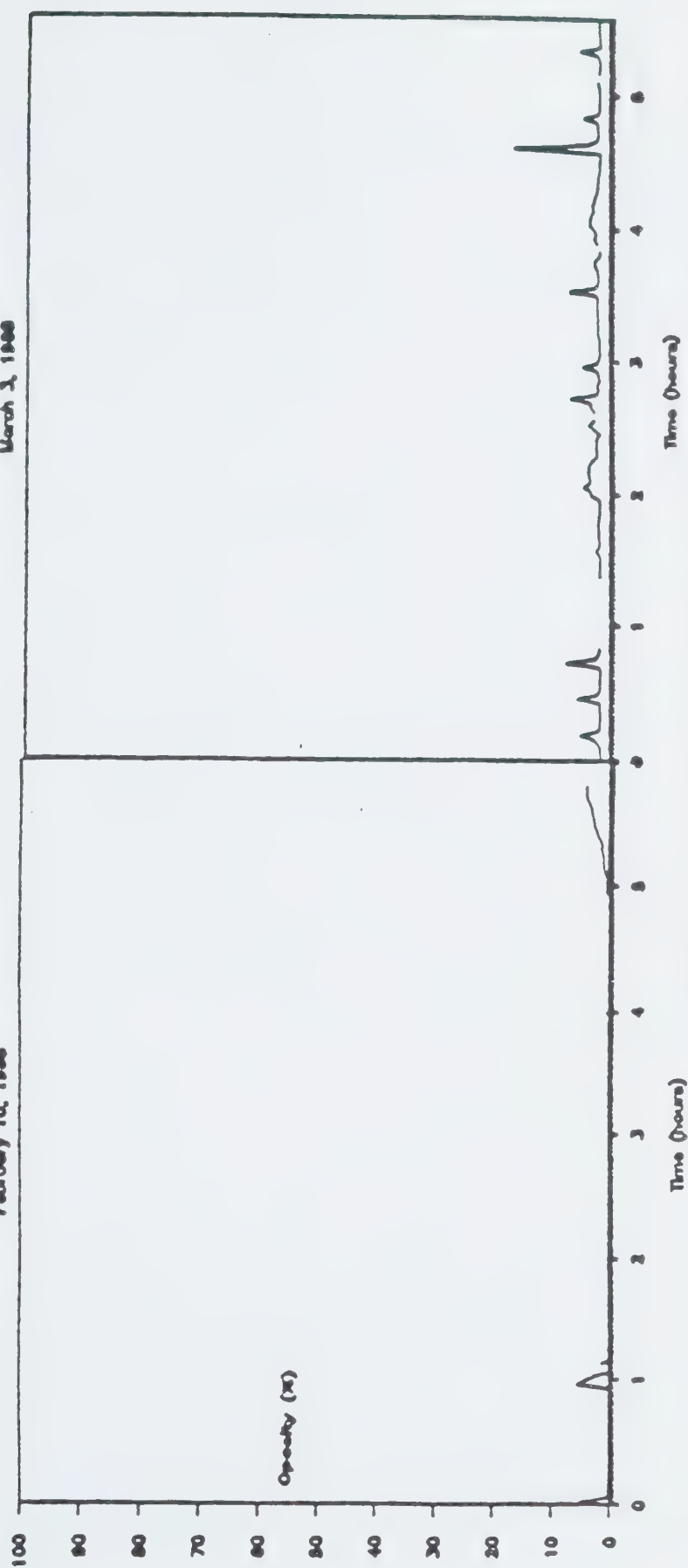


Figure 1: OPACITY VS TIME

HOSPITAL NO. 2 INCINERATOR

February 10, 1968

HOSPITAL NO. 3 INCINERATOR

March 3, 1968

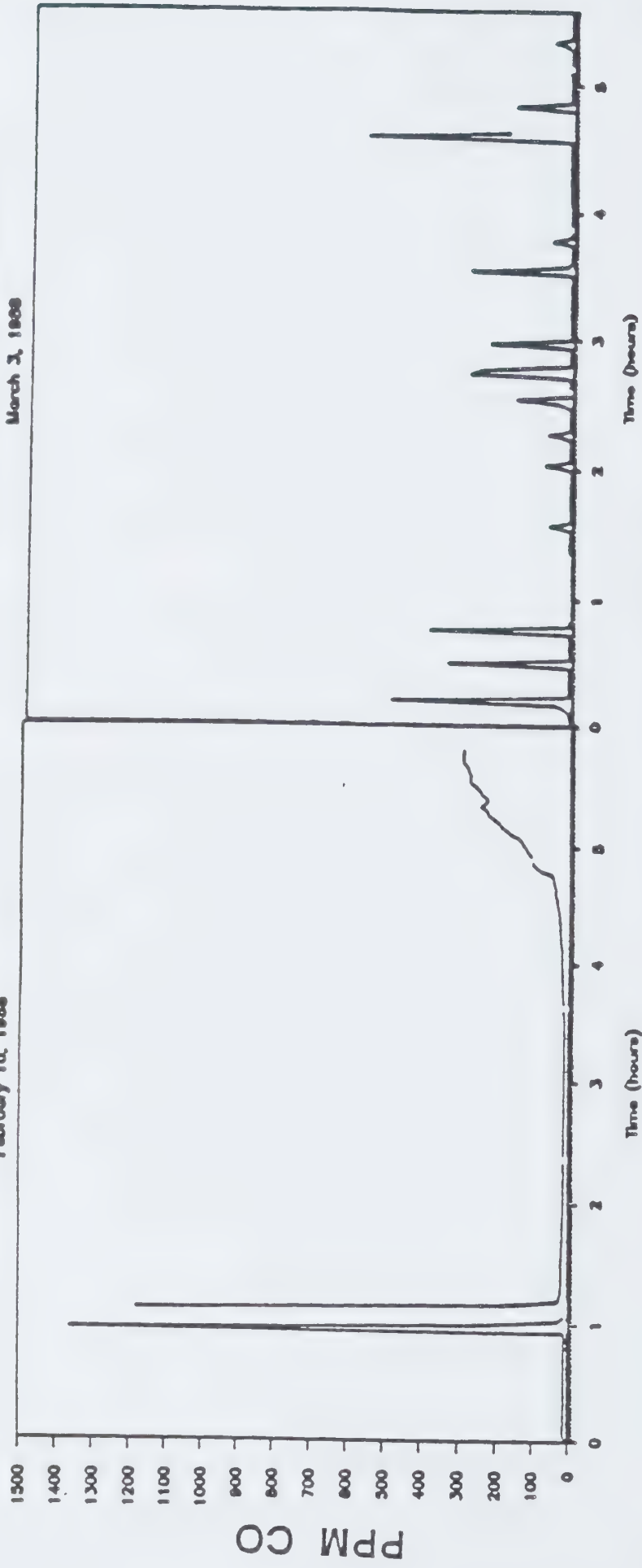


Figure 2: CARBON MONOXIDE v8 TIME

4 b)

RECEIVED

L. Crozier-Organ
12B Matilda St. N.
Dundas, Ontario
L9H 2Y8

627-0919

April 22, 1991

R. Prowse, Regional Clerk
Regional Municipality of Hamilton-Wentworth
Box 910
Hamilton, Ontario
L3N 3V9

Dear Mr. Prowse:

Further to our telephone conversation of February 1, 1991, I am enclosing a copy of a file copy of the letter my husband and I wrote to the Town of Dundas in July regarding a marsh which is located on regionally-owned property on the corner of King Street East and Olympic Drive in Dundas.

I am also enclosing a copy of the survey and letter from Christine Bishop of the Hamilton Naturalists Club, a copy of a map showing the location of the marsh and copies of letters received from the Town of Dundas regarding this matter.

Yours truly,

Liz Crozier-Organ

cc -- Regional Chairman



12B MATILDA ST. NORTH
DUNDAS, ONTARIO
L9H 2Y8

JUNE 17, 1990

TOWN OF DUNDAS
60 MAIN STREET
DUNDAS, ONTARIO

ATTENTION: COUNCILLOR R. WELCH
CHAIRMAN, PLANNING & DEVELOPMENT COMMITTEE

DEAR MR. WELCH:

WE ARE WRITING IN REGARD TO THE POSSIBLE ERADICATION OF A MARSH THAT EXISTS ON REGION-OWNED LAND SITUATED OFF OF KING ST. EAST NEAR OLYMPIC DRIVE IN DUNDAS AND NOW BORDERED BY THE RECENTLY CREATED BASEBALL PLAYING FIELD.

AS FAR AS WE KNOW THIS MARSH WAS IN EXISTENCE AT THE TIME DUNDAS WAS ORIGINALLY SETTLED AND HAS BOTH HISTORICAL AND ENVIRONMENTAL SIGNIFICANCE. IT IS MORE THAN LIKELY THAT IT WAS ONCE PART OF THE COOTES PARADISE MARSH. HOWEVER, DUE TO DEVELOPMENT, IT HAS BEEN CUT OFF FROM COOTES PARADISE AND BARELY SURVIVES AS AN UNIQUE ECO-SYSTEM IN ITS OWN RIGHT. AT PRESENT, FILL IS BEING PLOUGHED INTO THE EDGE OF THE MARSH. THERE IS A REAL THREAT THAT THE MARSH WILL BE BURIED IF THIS ACTIVITY DOES NOT CEASE. WE CAN SEE NO REASON WHY THIS FILL CAN NOT BE DUMPED ELSEWHERE IN A LESS ENVIRONMENTALLY SENSITIVE AND HISTORICALLY SIGNIFICANT AREA. AS WELL, THIS IS NOT CLEAN FILL; IT CONTAINS CONSTRUCTION RUBBLE, TIRES, CARPETING, MATTRESSES AND PIPES.

BESIDES THE THREAT OF BEING BURIED THE MARSH HAS BECOME CLUTTERED WITH DEBRIS DUE TO PAST, AND APPARENTLY ONGOING, ILLEGAL DUMPING. TIRES, BITS OF RUSTING METAL, PIPES AND EVEN SUCH ITEMS AS SINKS, STOVES AND ASBESTOS SHEETS HAVE BEEN OBSERVED WITHIN THE MARSH.

OUR CONCERN OVER THE FUTURE SURVIVAL OF THIS MARSH LED US TO CONTACT CHRISTINE BISHOP OF THE HAMILTON NATURALISTS' CLUB WHO RECENTLY COMPLETED A BIOLOGICAL SURVEY OF THE MARSH. THE RESULTS OF THIS SURVEY, AND HER RECOMMENDATIONS, ARE ENCLOSED. WE WOULD LIKE TO ADD TO THE NATURALISTS' CLUB'S SURVEY A LIST OF SPECIES OF ANIMALS AND PLANTS THAT WE HAVE OBSERVED IN THE MARSH OVER THE LAST FIVE YEARS:

BIRDS: BANK SWALLOWS, GOLDFINCHES, ROBINS, MOURNING DOVES, FLICKERS, KESTRELS, KINGFISHERS, SANDPIPERS, GREAT BLUE HERONS, GREEN HERONS, MALLARD DUCKS, BLUE-WING TEAL DUCKS, MUSCOVY DUCKS

MAMMALS: RED FOXES (2), SQUIRRELS, DEER, RABBITS, MARMOTS
(WOODCHUCKS)

REPTILES: GARTER SNAKES

OTHER: LAND SNAILS (IN ABUNDANCE)

PLANTS: SWAMP MILKWEED, SPOTTED JOE-PYE WEED, NODDING BUR
MARIGOLD, ARROWHEAD, WILLOW (INCLUDING PUSSY WILLOW) AND ALDER
TREES

AS YOU CAN SEE FROM BOTH THESE SURVEYS THIS AREA IS VERY
IMPORTANT GIVEN THE AMOUNT AND DIVERSITY OF LIFE IT SUPPORTS. IT
HAS SERVED, UP TO THIS TIME, A QUIET CORNER WHICH PROVIDES NATIVE
SPECIES OF ANIMALS WITH A SECLUDED NURTURING ENVIRONMENT. AS
SUCH, IT PROVIDES A SECOND, ALTHOUGH SMALLER, SANCTUARY IN
CONJUNCTION WITH COOTES PARADISE. GIVEN THAT COOTES PARADISE HAS
DETERIORATED FROM ITS ORIGINAL STATE AS A MARSH IN THE TRUE
MEANING OF THE WORD, IT PROVIDES A MORE COMPLETE AND NATURAL
HABITAT FOR THESE ANIMALS.

ALSO ATTACHED IS A LETTER FROM CHRISTINE BISHOP OUTLINING
HER ARGUMENT FOR THE PRESERVATION AND ENHANCEMENT OF THIS MARSH.
WE FULLY AGREE WITH MS. BISHOP'S POSITION. IT WOULD BE A
TRAGEDY, AT A TIME WHEN WETLANDS AND GREEN SPACES ARE QUICKLY
DISAPPEARING, WHEN ANIMALS ARE SUFFERING FROM A LACK OF NATURAL
HABITAT, IF THIS MARSH IS BURIED UNDER A MASS OF TIRES AND
RUBBLE. THE QUALITY OF LIFE FOR THE PRESENT AND FUTURE CITIZENS
OF DUNDAS WOULD ALSO SUFFER, WE FEEL, IF THIS MARSH IS DESTROYED.

IN REGARD TO THE PRESERVATION OF THE MARSH WE SUGGEST THAT
YOUR COMMITTEE LOOK TO THE PROVINCE'S WETLAND CLASSIFICATION
PROJECT. SECTION 3 OF THE PROVINCIAL PLANNING ACT IS THE
AUTHORITY UNDER WHICH THE PROVINCE'S WETLAND POLICY STATEMENT HAS
BEEN ISSUED. UNDER THE ACT, MUNICIPALITIES MUST HAVE REGARD TO
PROVINCIAL POLICY STATEMENTS AND, IN THE CASE OF THE WETLAND
POLICY STATEMENT, THIS ENSURES THAT WETLAND CONSERVATION BECOMES
PART OF THE PLANNING PROCESS OF MUNICIPALITIES. UNDER THIS
POLICY STATEMENT CLASS IV-VII WETLANDS ARE THOSE CONSIDERED TO BE
OF LOCAL SIGNIFICANCE. THE BEST USE OF THE WETLANDS IS AN ISSUE
TO BE DECIDED BY MUNICIPAL COUNCIL AS PART OF LOCAL PLANNING
PROCESS. IT IS POSSIBLE THAT THIS PARTICULAR MARSH MIGHT RECEIVE
A CLASS III DESIGNATION DUE TO ITS UNIQUE NATURE AND ITS HISTORIC
CONNECTION TO THE COOTES PARADISE ECO-SYSTEM.

- 3 -

THE MARSH WITH WHICH WE ARE CONCERNED MOST DEFINITELY QUALIFIES WITHIN THE CLASS IV - VII WETLAND CATEGORY AND IS OF LOCAL INTEREST. IT IS POSSIBLE THAT A HIGHER DESIGNATION MIGHT BE POSSIBLE GIVEN ITS HISTORIC CONNECTION AND CLOSE PROXIMITY TO COOTES PARADISE. THIS MARSH PLAYS AN IMPORTANT ROLE IN OUR LOCAL ECOLOGY AND, IF PROPERLY HANDLED BY THE TOWN, COULD ENHANCE THE LIVES OF DUNDAS CITIZENS AND FORM A PART OF THE TOWN'S PLANNING FOR TOURIST PROMOTION. WE WOULD LIKE TO HAVE THIS MARSH AREA CLASSED AS A CLASS III OR IV WETLAND AREA AND THE TOWN'S OFFICIAL PLAN CHANGED SO AS TO BLOCK FURTHER DEVELOPMENT OF THE AREA AND PRESERVE THIS MARSH FOR FUTURE GENERATIONS. TOURIST DOLLARS AND RECREATIONAL BENEFITS CAN SIGNIFICANTLY CHALLENGE THE RATIONALES OF THE MOST ARDENT PROPERTY DEVELOPMENT SUPPORTER. THE TOWN HAS ONLY LIMITED RESOURCES FOR EXPANSION BUT HAS UNLIMITED TOURIST POTENTIAL IF CAREFULLY PLANNED. WE STRONGLY SUPPORT THE RECOMMENDATIONS OF CHRISTINE BISHOP FOR THIS MARSH AREA. WE TRUST YOU WILL TAKE THE NECESSARY STEPS WITHOUT DELAY.

PLEASE LET US KNOW THE DATE UPON WHICH THE PLANNING AND DEVELOPMENT COMMITTEE WILL CONSIDER AND DISCUSS OUR LETTER. THANK YOU.

YOURS TRULY,

DAVID CROZIER-ORGAN

LIZ CROZIER-ORGAN

ENCL. CHRISTINE BISHOP'S "SURVEY AND RECOMMENDATIONS".



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

June 10 1990

Re: Region-owned lands near the Olympic Drive waste transfer site

The following is list of breeding birds, amphibians and reptiles mammals and botanical species found on June 9 1990 in the wetlands located at the above mentioned site:

Breeding Birds

	<u>Number</u>
Sora	1
Willow Flycatcher	3
Swamp Sparrow	1
Common Yellowthroat	1
Yellow Warbler	4
Red-winged Blackbird	6
Black-billed Cuckoo	1
Northern Oriole	1
Warbling Vireo	2
Song Sparrow	3
Eastern Kingbird	3
Indigo Bunting	1
Killdeer	3
Canada Goose	-several families

Reptiles

Painted Turtle	6
Snapping Turtle	1 nesting

Amphibians

Green Frog	2
Leopard Frog	2

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

This wetland site could be a valuable asset to the Dundas community. In its present state, the pond is being impacted by garbage such as tires and concrete blocks which litter its shoreline, and fill from construction activities. Despite these impacts, it remains a very productive wetland as evidenced by the above list of biotic contents noted at the site in just one visit. This does not include any migratory bird activity which is likely to occur there in the spring and fall. These types of small wetlands are an island of green and an attractive place for migrant birds among our many urban areas in the Golden Horseshoe. The presence of emergent plants, i.e. sedge and rush communities, cattail sp., is very special because this type of vegetation is lacking in most of the shoreline wetlands of Lake Ontario and Hamilton Harbour due to the destructive activities of carp, and sediment erosion. In fact, these types of plants will be welcome and encouraged in any future wetland rehabilitation efforts in Cootes Paradise.

This wetland must not only be preserved, but has great potential as an educational tool for the public and students in elementary and high school. It is easily accessible, and contains a significant biological community within minutes of Dundas homes. I believe it is an ideal site for the city or region to provide a couple of nature interpretation signs, to enhance the shoreline (!), and perhaps, place a small viewing platform near the baseball field. Our club would be very interested in participating in a co-operative effort with the region or city in this regard. I believe that the site can and will attract people to it but if it is ignored, and eroded inch by inch by fill it will be a sad loss to Dundas. Few towns still possess these types of wetlands so close to their community.

Yours sincerely,

A handwritten signature in cursive script, which appears to read "Christine Bishop".

Christine Bishop
Conservation Committee

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

Mammals

Raccoon	1
Husky	1

Aquatic Plants

Scirpus sp. (Rush sp.) community
Juncus sp. (Sedge sp.) community
Typha latifolia (Cattail sp.)
Typha angustifolia (Cattail sp.)

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and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.



18

19

20

Lake Jo-Jo

COOTES PARADISE

physical Services Bldg

Volunteer Field

SITe of Fill

DESJARDINS CANAL

REG. ROAD 341

CNR

COOTES DRIVE

KING ST. East

HUNTER ST

EAST ST

McKAY ROAD

YORK ROAD

ROAD 344

OLYMPIC DR

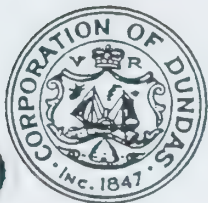
FOREST

VIEW

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TRAN



CORPORATION OF THE TOWN OF DUNDAS

OFFICE OF THE CLERK
SUSAN L. STEELE, TOWN CLERK

60 MAIN STREET, DUNDAS, ONTARIO L9H 2P8 (416) 628-6327, Ext. 201
MAILING ADDRESS: P.O. BOX 8584, DUNDAS, ONTARIO L9H 5E7

July 17, 1990

Mr. David Crozier-Organ,
Mrs. Liz Crozier-Organ,
12B Matilda Street North,
Dundas, Ontario.
L9H 2Y8

Re: Possible eradication of Marsh -
King Street and Olympic Drive
Our File No. 10.58.01

Dear Mr. and Mrs. Crozier-Organ:

Please be advised that your letter dated July 5, 1990 regarding the above matter was presented to the Town Council on July 16, 1990 at which time it was referred to the Planning and Development Committee.

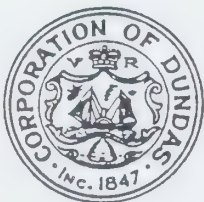
When this matter is to be considered by the Committee you will be advised of the meeting date.

Yours truly,

SLS:jr

S L Steele
(Ms.) Susan L. Steele, A.M.C.T.,
Town Clerk.

cc: J. Keating, Planning Co-Ordinator



CORPORATION OF THE TOWN OF DUNDAS

OFFICE OF THE CLERK
SUSAN L. STEELE, TOWN CLERK

60 MAIN STREET, DUNDAS, ONTARIO L9H 2P8 (416) 628-6327, Ext. 201
MAILING ADDRESS: P.O. BOX 8584, DUNDAS, ONTARIO L9H 5E7

December 11, 1990

Mrs. Liz Crozier-Organ,
12B Matilda Street North,
Dundas, Ontario.
L9H 2Y8

Re: Possible eradication of Marsh -
King Street and Olympic Drive
Our File No. 10.58.01

Dear Mrs. Crozier-Organ:

Please be advised that your letter dated July 5th which was referred to the Planning and Development Committee was considered at the November 21st meeting. At that time it was determined that your concerns were a Regional matter.

The Town Council endorsed this at its meeting on December 3, 1990.

The pictures you submitted with your letter are being returned at this time and a copy of your letter has been forwarded to the Regional Municipality of Hamilton-Wentworth as information.

I would suggest that if you wish to address a Committee of the Regional Council you contact Mr. R. Prowse, Regional Clerk, directly.

Yours truly,

A handwritten signature in cursive script that reads "S L Steele".

(Ms.) Susan L. Steele, A.M.C.T.
Town Clerk

SLS:jr

Attachment

cc: Mr. R. Prowse, Regional Clerk

Local wetlands endangered Dundas naturalists say



By Christine Bowman
Staff Writer

Two local naturalists are fighting to stop further destruction of a marsh they say has environmental and historical significance.

Liz and David Crozier-Organ have asked the town to help stop the filling in of the marsh — located on region-owned land near Volunteer Field on King Street — when an adjacent light-industrial park is built.

"I come out here and I see mattresses, tires and carpeting, and I'm trying to find out who's responsible for this. What we want is some sort of statement by the town that they're behind us and will support a cleanup effort," said Ms. Crozier-Organ during a visit to the site last week.

Ms. Crozier-Organ said she and her husband have hiked the marsh for years, but on recent trips have noticed the shoreline is receding while the amount of concrete pipes, plastic, tires and even sinks illegally dumped on the site is increasing.

Christine Bishop, a biologist and member of the Hamilton Naturalists Club, recently conducted a survey of the marsh and found 14 breeding birds, two kinds of reptiles, two species of amphibians, two types of mammals and four varieties of aquatic plants.

The marsh may have once been part of Cootes Paradise

See MARCH/page 4

Heed naturalists' concern for marsh

Re: Local Wetlands Endangered, Dundas Naturalists Say (Star Journal, July 25).

The naturalists' spirit and dedication to protecting and preserving a marsh in Dundas is to be applauded.

The town must take their concerns seriously. It is very

easy to dismiss them as extremists. What these people realize, which many of us do not, is that the earth is an ecosystem where everything is connected.

When we harm natural areas with a diversity of wildlife, we eventually harm ourselves.

The time is long overdue for us to tread lightly on nature and put thought into how and where we "develop."

Rashne Baetz, P. Eng.
Dundas

627-1111

PAGE 4 Dundas Star Journal, Wednesday, July 25, 1990

Marsh, industry's need must be balanced: mayor

Continued from Page 1

and still serves as a vital corridor for birds and mammals, Ms. Bishop said. She added it has great educational value for local schools, which could study it as part of their science and biology courses.

Vital corridor

Ms. Bishop and Ms. Crozier-Organ said they would like interpretive nature signs around the marsh to aid students or nature buffs in studying the area. They would also like permission to clean up the garbage and put clean fill around the marsh.

Ms. Bishop said it's unusual for a wetland of this type to be located so close to a community. It's also valuable because it contains sedge and cattail bul-

rushes, vegetation which doesn't flourish in many Ontario wetlands because the presence of carp fish causes sediment erosion and uproots the plants, she said.

"It's a wetland worth saving because there's such a diversity of wildlife there," she said. "Dundas has the opportunity to maintain a wetland, and a green space in their town. It's a good thing, it has esthetic as well as hydrological benefits to the town."

Ms. Bishop said the marsh is important not only because it attracts unusual species and will keep pesky species of insects in the area, but also because it may help absorb some of the runoff from nearby Volunteer Field.

But Mayor John Addison said before the town makes a decision, it must first determine whether the marsh is worth saving.

Professional opinion

"I want to get a professional opinion as to what is really in there," he said. "(Ms. Bishop's) a biologist with a very definite slant, but I want to know, is it unique or is it something that occurs everywhere?"

"I would like the whole thing to be quantified."

He added if an expert from the Royal Botanical Gardens finds the marsh supports rare wildlife, the town would fight to save it.

"We would approach the developer and say, 'You're not going to be able to develop the whole property. You must keep some of that marsh,'" he said.

Mr. Addison added while he understands the naturalists' concerns, they must be balanced with the town's need to attract new industry.

Regional Councillor John Prentice, who's visited the marsh, said he'd rather spend money on improving Cootes Paradise.

"There's nothing in that little marsh that's rare. It's a very attractive little pond because there's no carp in it," said Mr.

"I come out here and I see mattresses, tires and carpeting and I'm trying to find out who's responsible for this. What we want is some sort of statement by the town that they're behind us and will support a cleanup effort."

— Liz Crozier-Organ

Prentice, who sits on Regional Chairman Reg Whynott's environmental advisory committee.

He said he would try to convince the developer to keep it as a green space, but added that might be difficult because the region spent a lot of money to attract industry to locate there.

Val Terluk, the region's manager of solid wastes, also said preservation interests need to be balanced against development.

"I agree with Mr. Addison that you don't want to be an extremist in these situations. You can't just come in and say the woolly caterpillar is going to suffer, so we can't build here even though the economy of the town may suffer greatly," said Mr. Terluk, who also sits on the environmental committee.

Balance interests

But Mr. Terluk said if the town is serious about protecting the area, it could pass a resolution to have the region examine the marsh in detail. The analysis could begin as early as September, he added.

Ms. Crozier-Organ said she understands the town's dilemma and is not opposed to careful, light development. But she added she would still like the town to commit to saving the marsh before it's too late.

"I'm certainly not against Volunteer Field. I think it's a tremendous thing. And the region has said the development will be handled very carefully," she said.

"But unless the town and region take some stance and say it's an important area, the developers won't think it's an important area, and we'll lose it."

Grafton lot development should begin this

FROM THE MAYOR'S DESK JOHN ADDISON

Now that we are getting closer to summer, the planning and budgeting which has gone on during the winter months will be translated into both hard and soft services

The Dundas tax increase of 4.29 per cent is once again the lowest in the region; however, council has not sacrificed or delayed any capital projects and will, in fact, be developing fur-

ther many existing programs. We have never tried to do everything at once, but we do look beyond the immediate to better anticipate the town's needs up to five years in the future.

With careful planning, and without major surprises from the province, there is no reason why this and future councils cannot continue to meet the demands of the community without occasional tax shocks.

As well, we are optimistic that development will begin on the Grafton lot, this summer.

Plans have been finalized and will be presented to the planning committee this month. If all goes according to what we've seen so far, the final result should prove to be a substantial addition to the downtown — and a complement to our current streetscape.

With the advisory committee's work all but finished, the task of ensuring that what we've seen on paper actually gets built re-

mains with council.

I will speak more about the role of the advisory committee at a later date, since I want its contribution to be properly understood and recognized by the people of Dundas.

One other area that should see some development in the not-too-distant future is a parcel of vacant land in the vicinity of King Street and Olympic Drive.

Approximately three years ago, the region identified lands it owned which could be considered surplus.

After deducting what it wanted for regional needs, it was concluded that there was industrial potential for about twelve acres (4.8 hectares).

A buyer who would like to build immediately has now been identified, so if negotiations are successful some positive action should commence within the year.

Finally, I would be remiss if I did not congratulate those who have worked so hard to mak-

see often with a Peace House

Dundas Star Journal, Wednesday, June 6, 1990

PAGE 3

Region close to deal on Olympic development

Confidential negotiations are under way for an 7,650-square-metre (85,000-square-foot) office and commercial development on region-owned lands near the Olympic Drive waste transfer station.

During a visit to Dundas last week, Regional Chairman Reg Whynott said a deal to sell 4.8 hectares (12 acres) of land to a local developer, whom he wouldn't name, could be inked this month.

"Our region has really been working on this one because the council of Dundas would like to see something happen there," he told about 25 members of the Hamilton and District Chamber of Commerce's Dundas division who gathered at the Dundas Valley Golf and Curling Club.

Mr. Whynott, invited to speak on economic prospects in Dundas, said the development would help improve the town's commercial assessment tax base, which has been slowly dwindling as Dundas increasingly becomes a residential community.

The town had initially hoped the site would be developed as an industrial park, but a report last year by the region's economic development department concluded the site's size and adjoining land uses limited its potential. As an alternate strategy, the region has been trying to attract area businesses to the site.

Opportunities

The site is one of the few vacant commercial properties

in Dundas, and as a result, most future development will come in the form of redeveloping existing properties, like Wayne Full International Investment Inc.'s plans to transform the former Canada Machine Corporation site on Hatt Street into a \$20-million commercial-residential complex, Mr. Whynott said.

"We believe that the economic future in Dundas will rest around the commercial and retail activity sector, servicing your local residents and capitalizing on your above average income of Dundas residents," he said.

"Potential for growth is slow but steady, and most of it will be controlled by your local council, with the region coming in to provide the services as (they) are required."

While Dundas continues to be a preferred residential area in the region, Mr. Whynott said growth prospects are also limited by the lack of available land. Although there is room for about 1,500 more housing units — about 15 per cent of Dundas' present housing stock — the town lags behind Stoney Creek, Ancaster, Glanbrook and Flamborough, he said.

Between 1988 and 1989, the town's population rose from 20,640 to 21,230, while the number of properties on the tax rolls grew from 6,440 to 6,891 — an increase of 4 per cent, he said. Overall, the assessment grew by about 1.03 per cent.

"These are very modest figures, but I want you to know that it's better than being the other way," he said.

Mayor John Addison, in an address prior to Mr. Whynott's speech, said that while Dundas has little developable industrial land, the proposed commercial-residential development on the Grafton lot and the beautification project in the downtown area should bring positive changes.

"We're very optimistic about our own future here, especially our commercial (potential) and our downtown," he said.

COMPARE THE RATE!

13%

Subject to change

Guaranteed Investment Certificates

HAMILTON 523-6630
DUNDAS 628-2800



STANDARD TRUST

Member.
Canada Insurance Deposit Corporation

Chairman's Advisory Committee
on Environmental Issues.
Friday, October 12, 1990

Liz Crozier-Organ —
128 Matilda St. N.
Dundas, Ontario
L9H 2Y8

August 15, 1990

Regional Municipality of Hamilton-Wentworth
Office of the Clerk
P.O. Box 910
119 King Street West
Hamilton, Ontario
L8N 3V9

Attention: Mr. Jack Ramsey, Legislative Co-Ordinator

Dear Mr. Ramsey:

Re: Proposed Composter to Be Built in the Town of Dundas on
Regionally-Owned Property Adjacent to the Dundas Transfer
Station

I am writing out of concern for a marsh that is located on the same property that the above mentioned composter is to be built; and I am requesting that this matter be put on the agenda for the September meeting of the Regional Chairman's Environmental Advisory Committee.

While the composter is prima facie a good idea insofar that it means a reduction in the amount of garbage going into landfill sites, I am concerned about the possible detrimental effect this operation will have on the delicate ecological balance of the marsh.

Enclosed is a biological survey completed by Christine Bishop of the Hamilton Naturalists Club, which shows that this marsh supports a wide diversity of life. It serves as a quiet corner which provides native species of animals with a secluded nurturing environment. As such, it provides a second sanctuary in conjunction with Cootes Paradise.

Also enclosed is a copy of a letter from Christine Bishop outlining her argument for the preservation and enhancement of this marsh.

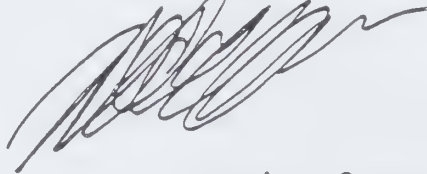
Although I understand that the composter is to be built near the Transfer Station, I would appreciate a copy of a map showing its location.

Page 2

I am concerned as to the impact this composter will have on the marsh as there is a possibility that hazardous materials may result from its operation, especially in view of the fact that sewage sludge will be used in its operation, and commercial and industrial waste may also be accepted. I suggest that further research be done before building this composter near the marsh to ensure that its operation does not have a deleterious effect on this important natural habitat.

I would appreciate a reply from you informing me whether this matter has been placed on the Committee's September agenda and the date and place of the meeting.

Yours truly,

A handwritten signature in dark ink, appearing to read 'Liz Crozier-Organ', with a stylized, flowing script.

Liz Crozier-Organ

cc: Brian McHattie
Hamilton Naturalist's Club



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L

June 10, 1990

Re: Region-owned lands near the Olympic Drive waste transfer site.

The following is list of breeding birds, amphibians and reptiles mammals and botanical species found on June 9 1990 in the wetlands located at the above mentioned site:

Breeding Birds

Number

Sora	1
Willow Flycatcher	3
Swamp Sparrow	1
Common Yellowthroat	1
Yellow Warbler	4
Red-winged Blackbird	6
Black-billed Cuckoo	1
Northern Oriole	1
Warbling Vireo	2
Song Sparrow	3
Eastern Kingbird	3
Indigo Bunting	1
Killdeer	3
Canada Goose	-several families

Reptiles

Painted Turtle	6
Snapping Turtle	1 nesting

Amphibians

Green Frog	2
Leopard Frog	2



Postal Station E, Box 5
HAMILTON, ONTARIO L

Mammals

Raccoon	1
Muskrat	1

Aquatic Plant.

Scirpus sp. (Rush sp.)	community
Juncus sp. (Sedge sp.)	community
Typha latifolia	(Cattail sp.)
Typha angustifolia	(Cattail sp.)



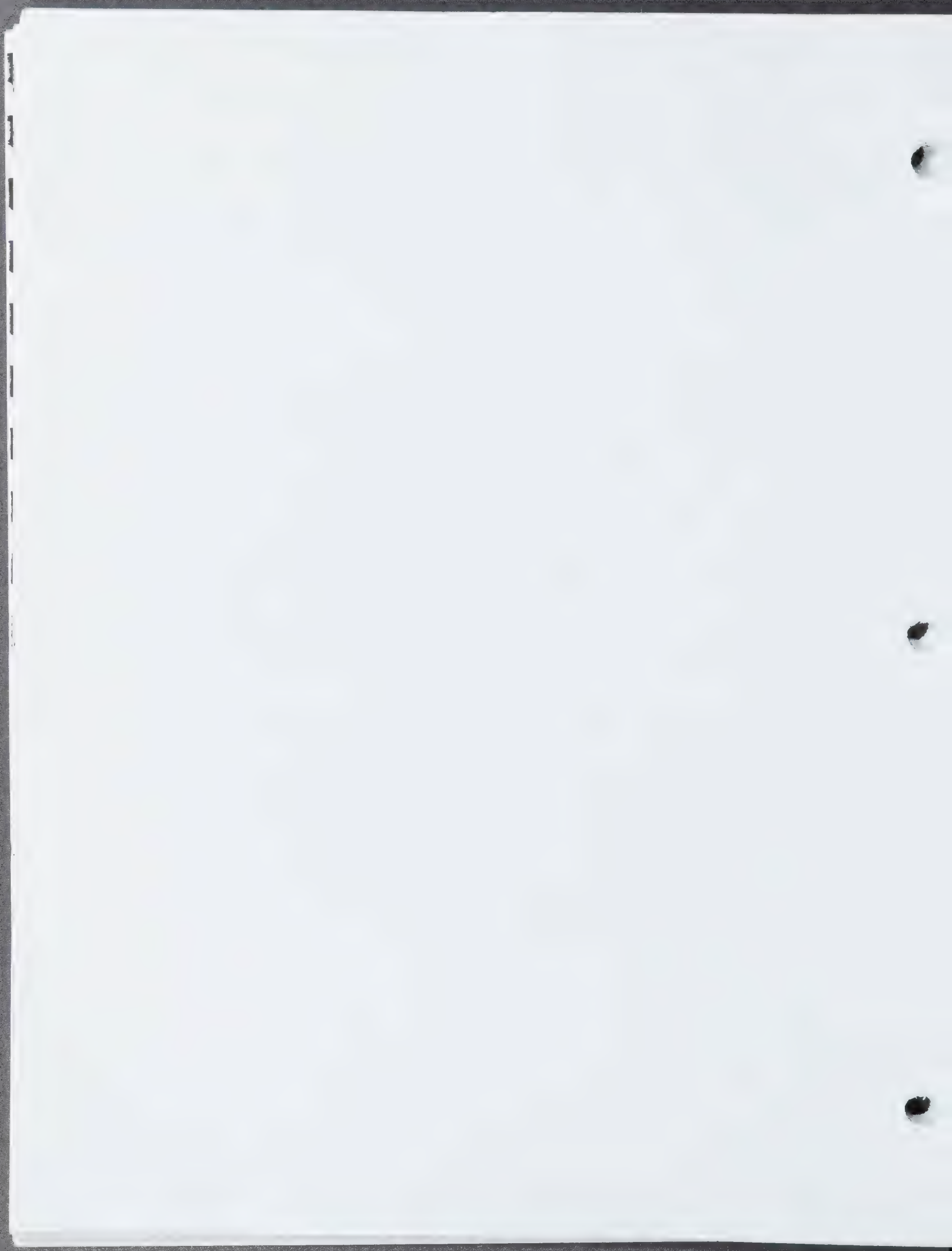
Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

This wetland site could be a valuable asset to the Dundas community. In its present state, the pond is being impacted by garbage such as tires and concrete blocks which litter its shoreline, and fill from construction activities. Despite these impacts, it remains a very productive wetland as evidenced by the above list of biotic contents noted at the site in just one visit. This does not include any migratory bird activity which is likely to occur there in the spring and fall. These types of small wetlands are an island of green and an attractive place for migrant birds among our many urban areas in the Golden Horseshoe. The presence of emergent plants, i.e. sedge and rush communities, cattail sp., is very special because this type of vegetation is lacking in most of the shoreline wetlands of Lake Ontario and Hamilton Harbour due to the destructive activities of carp, and sediment erosion. In fact, these types of plants will be welcome and encouraged in any future wetland rehabilitation efforts in Coolidge Park.

This wetland must not only be preserved, but has great potential as an educational tool for the public and students in elementary and high school. It is easily accessible, and contains a significant biological community within minutes of Dundas homes. I believe it is an ideal site for the city or region to provide a corner of nature interpretation signs, to enhance the shoreline (!), and perhaps, place a small viewing platform near the baseball field. Our club would be very interested in participating in a co-operative effort with the region or city in this regard. I believe that the site can and will attract people to it but if it is ignored, and eroded inch by inch by fill it will be a sad loss to Dundas. Few towns still possess these types of wetlands so close to their community.

Yours sincerely,

Christine Bishop
Conservation Committee



4 c)

OFFICE OF THE REGIONAL CHAIRMAN

MEMORANDUM

DATE: May 2, 1991

TO: Ramona Dechert
Administrative Co-Ordinator
Legal Services Department

FROM: R.J. (Reg) Whynott
Regional Chairman

SUBJECT: ENVIRONMENTAL AWARENESS

Thank you for your Memorandum to me dated April 22, 1991 regarding the above matter.

For your information, I have forwarded the material you enclosed entitled "Environmental Awareness in Law Office Practices" to the Environmental Issues Sub-Committee for their perusal and consideration.

Many thanks for sending this very worthwhile information to my attention.

✓cc - K. Pidsadny, Secretary
Environmental Issues Sub-Committee

Encl.



**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, June 13, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

URBAN MUN.C. AL
JUN 14 1991
GOVERNMENT DOCUMENTS

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Secretary's Report of Chairman's Advisory Committee on Environmental Issues Committee Meeting - May 9, 1991

2. BUSINESS ITEMS

2.1 Appointed Alternate for Chairman's Advisory Committee on Environmental Issues

That Mr. Don McLean be appointed as the alternate voting member for Mr. Brian McHattie, as outlined in the Terms of Reference for the Chairman's Advisory Committee on Environmental Issues.

Note: Council approval for voting alternates of the Chairman's Advisory Committee on Environmental Issues Council Minutes, May 21, 1991, ESC Report 9-91, Item 22.

2.2 The Arts Community, The Environment and Business, Correspondence dated February 19, 1991 from Councillor B. Hinkley

- a) That any and all concepts and projects based on the "Imagination Market" model be listed in the applicable categories of the Recycling Directory published by the Solid Waste Operations Section;

- b) That recipients of waste audits performed by Solid Waste Operations Section staff be notified of the project when applicable materials are generated;
- c) That "Imagination Market" projects be invited to participate in any seminars held by the Solid Waste Section;
- d) That information about any such project be published periodically in the Waste Management Citizen's Guide;
- e) That, in the event that an "Imagination Market" venture is introduced by the business and arts community, the Region demonstrate support for the project and that the Regional Chairman be asked to provide a letter of introduction on behalf of the venture in order to add credibility to their approach to industry.

3. For the Information of the Committee

That the following items be received:

- a) Household Toxic Waste Disposal - Senior Access, correspondence dated May 16, 1991, from Councillor B. Hinkley
- b) Comments and Recommendations based on an Independent Review of the Prospectus (Draft #2) for the Proposed Composting Facility, correspondence dated May 31, 1991, from Solid Waste Sub-Committee
- c) Correspondence dated May 29, 1991, to Dr. P. Boldrini, from the Regional Chairman, R. J. Whynott, respecting Ecosystem Approach Group submissions
- d) Correspondence dated May 13, 1991, from Regional Planning to Mr. Daryl Cowell re: Marshland, King Street East/Olympia Drive Area, Town of Dundas
- e) Correspondence dated May 2, 1991, from Wendy Newman, Hamilton Public Library, acknowledging receipt of materials for Environment Week at the Hamilton Public Library, April 22 - 28, 1991
- f) Underground storage tanks

- g) Correspondence received May 9, 1991, addressed to the Regional Chairman, R. J. Whynott, from Mr. and Mrs. Crozier-Organ, Dundas
- h) Hotz and Sons Ltd. - Drums and Wipers Division, 166 Ferguson Avenue North, Hamilton

4. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
Date	Subject	Referred to:
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon

5. ADJOURNMENT

1b

SECRETARY'S REPORT OF THE CHAIRMAN'S ADVISORY COMMITTEE ON ENVIRONMENTAL ISSUES

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m., on Thursday, May 9, 1991 in the Committee Room, Regional Offices.

One-half hour after the appointed time of the meeting there was no quorum present. The Clerk recorded the names of those present and the meeting stood adjourned.

The Items on the Agenda were discussed and the actions taken will be ratified at the next meeting of the Advisory Committee on Environmental Issues.

Present: Chairman (Councillor) J. Prentice
Councillor B. Hinkley
R. Baetz, B. Pedder, B. Thompson, G. Birchall

Absent: Councillors G. Copps, H. Merling
B. Vanderbrug, K. Murphy, B. McHattie, P. Muldoon

Also Present: R. Stewart, J. Barnett, D. McLean, M. Gibbs, Dr. B. Gibson, G. Ostofi, B. Pearce, V. Terluk, B. Loretto, M. Gallagher

2. DELEGATION

2.1 Presentation by Ollie Thomson, Chairman, Environmental Issues Committee, Chamber of Commerce

Mmes. O. Thomson and K. Drewitt of the Chamber of Commerce Environmental Issues Committee addressed the Committee.

The delegation summarized issues from a written submission presented to the Advisory Committee. The summarization included a brief history of the Environmental Issues Committee (a Sub-Committee of the Chamber of Commerce Business Development Committee) and its goals and objectives for the future with respect to environmental programs, issues and their effect on the business community in Greater Hamilton.

Note: The delegation was requested to be placed on the Region's mailing list of the Chairman's Advisory Committee in an effort to keep the Chamber apprised of the activities of the Chairman's Environmental Issues Advisory Committee.

New Business - Amendment to the Terms of Reference - Committee Structure

(Hinkley/Baetz)

- a) That the Engineering Services Committee be requested to re-confirm the interest of all members serving on the Chairman's Advisory Committee on Environmental Issues;
- b) That the Membership of the Advisory Committee be amended to include the names of appointed alternates for citizen members where two or more consecutive absences will occur, approved by the Advisory Committee and the Engineering Services Committee, such alternates to serve when the appointed Committee member is unavailable to attend a meeting;
- c) That the alternate member be granted the same voting privileges as the Committee member they represent, with the exception that if both alternate and appointed Committee member are present at the same meeting, that the Committee member retains his/her voting privileges but the alternate forfeits his/her right to vote at that particular meeting;
- d) That those Committee members who do wish to have an alternate, be requested to submit the names to Advisory Committee for approval and ratification by the Engineering Services Committee;
- e) That the correspondence from the Regional Clerk dated April 19, 1991 with respect to Quorum be included as information with the above recommendations to the Engineering Services Committee.

2.2 Correspondence from Dr. P. Boldrini, Ecosystem Approach Group requesting support of their goals

Dr. P. Boldrini appeared before the Committee to address his concerns with respect to the Ecosystem Approach Group.

(Baetz/Thompson)

That Dr. Boldrini's submission entitled "Petition to the Premier of Ontario, The Ecosystem Approach Group petitions the Ontario Government" be forwarded to the Energy Subcommittee for review and that a report be brought back to the Committee.

3.1 Control of Ozone-Depleting Substances (HEA 91-035)

(Pedder/Birchall)

- a) That the Regional Chairman present a proposed amendment, as outlined in Report HEA 91-035, to Section 149 of the Regional Municipality of Hamilton-Wentworth Act, respecting the control of ozone-depleting substances, for discussion at a meeting of the Regional Chairmen's Group of Ontario, with a view to encouraging other Regions within the Province to request, along with the Region of Hamilton-Wentworth, that the Provincial Minister of Municipal Affairs amend the Acts of the respective municipalities to allow for the control of ozone-depleting substances;
- b) That following his presentation before the Regional Chairmen's Group, the Regional Chairmen report back to Council, through the appropriate Committee, on the outcome of the discussion;
- c) That Report HEA 91-035, respecting the control of ozone-depleting substances, be forwarded to the Engineering Services Committee for approval, and Legislation and Reception Committee for information.

Note: Mr. John James on behalf of Mr. Jim Tapley addressed the Committee. Mr. James expressed concerns with respect to the storage of CFC's and the depletion of the ozone layer. He suggested that a station should be implemented for the storage of CFC's.

Item 4b was moved forward on the Agenda

Mr. and Mrs. David Crozier-Organ appeared before the Committee to discuss the eradication of a Marsh which exists on land situated off of King Street East near Olympic Drive in the Town of Dundas. Their concern was that land fill was being dumped into the into the edge of the Marsh and consequently the Marsh will eventually be buried.

(Baetz/Birchall)

- a) That the correspondence from Mr. Crozier-Organ relaying his concerns be forwarded to the Planning Staff to be directed to Geomatics International for review in the ESA Development Sensitivity Study and that the Planning staff bring a report back to the Committee;

- b) That the correspondence from Mr. Crozier-Organ be forwarded to the Naturalist Club and request that they investigate the environmental sensitivity of the Marsh area.

Note: Staff of the Water/Sewer Department will investigate the dumping of the landfill to ensure that any dumping in that immediate area is ceased.

3.2 Environmental Sensitive Area - Development Study 1990

Planning Department staff gave the Advisory Committee an overview of the results and recommendations of the ESA Development Sensitivity Study.

(Thompson/Birchall)

That the ESA Development Sensitivity Study be referred to the Naturalist Area Sub-Committee for review, and that a report be brought back to Committee.

Other Business

Durand Neighbourhood

Ms. Marjorie Walsh of the Durand Neighbourhood brought the Committee up to date on the recent installation of cement cans for collection of waste in the Neighbourhood.

Judge for Chairman's Environmental Commitment Awards

(Birchall/Pedder)

- a) That Barry Thompson be appointed to serve on the Judging Committee for the Chairman's Environmental Commitment Awards;
- b) That the appointment be forwarded to the Economic Development and Planning Committee.

International Longshoremen Association

Mr. Pedder raised a concern with respect to how material from ships in our Harbour are disposed of. Mr. Pedder was advised to contact the Harbour Master Ian Nobles to request this information.

The meeting adjourned at 11:30 a.m.

Chairman

Acting Secretary

2.1

REGION OF HAMILTON-WENTWORTH

- RECOMMENDATION -

DATE: 1991 June 6

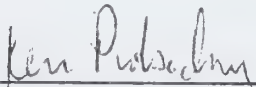
REPORT TO: Chairman and Members of the
Chairman's Advisory Committee on Environmental Issues

FROM: Ken Pidsadny
Legislative Co-Ordinator

SUBJECT: Appointed Alternate for Chairman's Advisory Committee on
Environmental Issues

RECOMMENDATION:

That Mr. Don McLean be appointed as the alternate voting member for Brian McHattie, as outlined in the Terms of Reference from the Chairman's Advisory Committee on Environmental Issues.


Ken Pidsadny

BACKGROUND:

Regional Council at its meeting of May 21, 1991, approved Item 22 of the Engineering Services Committee Report 9-91 which states:

- a) That the Engineering Services Committee be requested to re-confirm the interest of all members serving on the Chairman's Advisory Committee on Environmental Issues;
- b) That the membership of the Advisory Committee be amended to include the names of appointed alternates for citizen members and approved by the Advisory Committee and the Engineering Services Committee, such alternates to serve when the appointed Committee member is unavailable to attend three or more consecutive meeting;

SUBJECT: *Appointed Alternate for
Chairman's Advisory Committee on Environmental Issues*

Page 2

- c) That the alternate member be granted the same voting privileges as the Committee member they represent, with the exception that if both alternate and appointed Committee member are present at the same meeting, that the Committee member retains his/her voting privileges but the alternate forfeits his/her right to vote at that particular meeting;
- d) That those Committee members who do wish to have an alternate, be requested to submit the names to Advisory Committee for approval and ratification by the Engineering Services Committee;
- e) That the correspondence from the Regional Clerk dated April 19, 1991 with respect to Quorum be included as information with the above recommendations to the Engineering Services Committee.

As of June 5, 1991, the Clerks Office has received correspondence from Brian McHattie to appoint Mr. Don McLean as his alternate voting member on the Chairman's Advisory Committee on Environmental Issues.



Postal Station E, Box 182
HAMILTON, ONTARIO L8S 4L5

May 12, 1991.

Mr. Ken-Pidsadny
Regional Clerk's Department
Regional Municipality of Hamilton-Wentworth
P.O. Box 910
Hamilton, Ontario
L8N 3T4

Dear Ken,

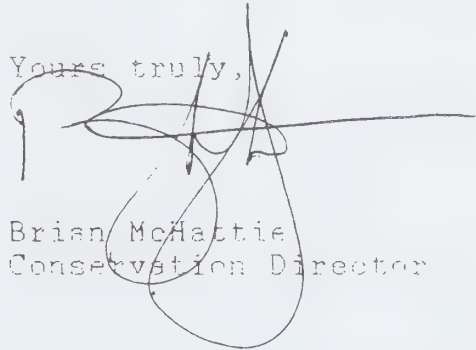
I refer to a discussion that took place at the May 9 meeting of the Chairman's Advisory Committee on Environmental Issues regarding the question of alternates for committee members.

As you know, my current situation makes it difficult for me to attend all meetings. Therefore, I am naming Mr. Don McLean of the Hamilton Naturalists' Club as my alternate. I understand that alternates will have full voting privileges on the committee. For your information, Mr. McLean will also sit on the Natural Areas sub-committee, providing the necessary link to the CACEI, and ensuring fluidity in information flow.

I would ask you to add Mr. McLean to your mailing list for all committee correspondence including agendas, minutes etc.

Should you have any questions regarding these arrangements please contact me at my home address.

Yours truly,


Brian McHattie
Conservation Director

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members.

REGION OF HAMILTON-WENTWORTH

2.2.

-RECOMMENDATION-

DATE: 1991 May 2
E309-20B

REPORT TO: Mr. Chairman and Members
Chairman's Advisory Committee on Environmental Issues

FROM: L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

SUBJECT: Correspondence dated February 19, 1991 from Councillor Brian
Hinkley re: The Arts Community, the Environment, and Business.

RECOMMENDATION:

- a) That any and all concepts and projects based on the "Imagination Market" model be listed in the applicable categories of the Recycling Directory published by the Solid Waste Operations Section;
- b) That recipients of waste audits performed by Solid Waste Operations Section staff be notified of the project when applicable materials are generated;
- c) That "Imagination Market" projects be invited to participate in any seminars held by the Solid Waste Section;
- d) That information about any such project be published periodically in the Waste Management Citizen's Guide; and
- e) That, in the event that an "Imagination Market" venture is introduced by the business and arts community, the Region demonstrate support for the project and that the Regional Chairman be asked to provide a letter of introduction on behalf of the venture in order to add credibility to their approach to industry.


for L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

-Page 2-
1991 May 2

Correspondence dated February 19, 1991 from Councillor Brian Hinkley re: The Arts Community, the Environment, and Business.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

N/A

BACKGROUND:

Attached is the memo from K. Pidsadny referring the above noted correspondence, dated March 15, 1991, to staff. Councillor Hinkley has been approached regarding civic involvement with the "Imagination Market", a concept that "supplies safe, industrial cast-offs, cut-outs, and leftovers - otherwise destined for landfill - to creative people and projects in all parts of the world." According to information attached to Councillor Hinkley's correspondence, the Vancouver branch is a substantial and successful undertaking.

This correspondence indicates that "A staff of nine full-time, 21 part-time, and over 100 volunteers gathers up five van loads per week of scrap from more than 300 manufacturers, commercial printers, sign makers, and other industrial producers...". In this respect, the development and success of such a project in Hamilton-Wentworth would be consistent with solid waste management objectives.

The Region, through its Solid Waste Operations, could play a constructive role, particularly in its ongoing function as a central contact for the business community. The scope of such a project, however, requires the full-time dedication of a committed entrepreneur(s) in the community; Solid Waste Operations can complement the business and arts community in this type of venture by:

- * listing the venture in any and all applicable categories of the Recycling Directory, which is commonly made available to waste generators in order that they can contact potential recyclers of their process by-products.
- * suggesting to recipients of waste audits that, when appropriate, contact be made with the project.
- * inviting the project to partake in any seminars held by the Solid Waste Section, and to publish information about the project in the Waste Management Citizen's Guide, a newsletter produced by the Region's Solid Waste Operations staff twice per year.
- * promoting the venture.

It is felt that the development of such a project by the business and arts community should receive the support of the Region.

-Page 3-
1991 May 2

Correspondence dated February 19, 1991 from Councillor Brian Hinkley re: The Arts Community, the Environment, and Business.

PJ/pj
attach

cc: R.J. Whynott, Regional Chairman
cc: M. Carson, Chief Administrative Officer

OFFICE OF THE REGIONAL CLERK
MEMORANDUM

FILE NO.
LETTER NO.
MAR 19 1991
FILED BY

VT

TO: Mr. T. Gill
Acting Commissioner of Engineering

FROM: Mr. Ken Pidsadny
Legislative Coordinator

OUR FILE:
PHONE: 546-4304

SUBJECT: Correspondence dated February 19, 1991
from Councillor B. Hinkley re: The Arts
Community, the Environment, and Business

DATE: 1991 March 15

At its regularly scheduled meeting of March 14, 1991, the Chairman's Advisory Committee on Environmental Issues requested the following:

"That this item be referred to staff and that staff initiate with the Hamilton Arts Council, the feasibility of implementing a similar project in Hamilton-Wentworth, that is being addressed in Vancouver, B.C."

If you have any questions please do not hesitate to call me.

Thank you,

Ken Pidsadny

Ken Pidsadny

KP/kl
Attach:

Ken Pidsadny
Ken Pidsadny
Ken Pidsadny
Ken Pidsadny



CITY COUNCIL

Brian Hinkley Alderman Ward Three

Hes: (416) 572-7500

February 19, 1991.

RECEIVED

FEB 21 1991

REGIONAL CLERKS OFFICE

Mr. Ken Pidsadny,
Secretary,
Chairman's Advisory Committee on Environmental Issues,
The Regional Municipality of Hamilton-Wentworth,
119 King Street West,
Clerk's Office, 15th Floor,
P. O. Box 910,
Hamilton, Ontario.
L8N 3V9.

Dear Mr. Pidsadny:

Re: THE ARTS COMMUNITY ... THE ENVIRONMENT ... AND
BUSINESS

Please find enclosed, for your information, an interesting project that is currently being operated in Vancouver and Nanaimo, British Columbia.

I believe the enclosures clearly explain how the Arts Community, the Business Community and the Environmentalists can develop a worthwhile project for the community.

This information was forwarded to me by Ms. Victoria Munroe. Ms. Munroe is particularly concerned about the artistic and environmental benefits to be developed by such an undertaking.

Finance & Administration
Committee
-Chairman

Keep Hamilton
Clean Committee
-Chairman

Seniors Centre
Feasibility Study
-Chairman

Harbour Task
Force
-Chairman

Handbill
Sub-Committee
-Chairman

Hamilton Municipal
Retirement Fund
-Chairman

Hamilton Seniors
Council
-Liaison

Recreation
Committee
-Member

Hamilton Non-Profit
Housing
-Member

Regional Engineering
Committee
-Member

Regional Economic
Planning Committee
-Member

Chairman's Environmental
Advisory Committee
-Member

Hamilton-Wentworth
Children's Aid Society
-Member



Recycled Paper

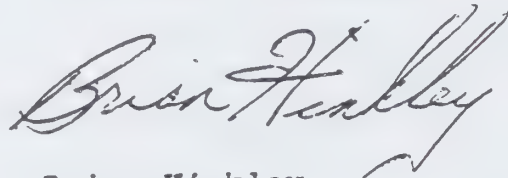
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Should there be interest from the Arts Community, the Business Community and those involved in the environment, I would be willing to assist in bringing together the interested parties.

I would appreciate hearing feedback from your organization.

Yours very sincerely,



Brian Hinkley,
Alderman, Ward 3;
Chairman of the Keep Hamilton
Clean Committee;
Member of the Chairman's
Advisory Committee on
Environmental Issues.

BH:dd

c.c. Ms. Victoria Munroe, 20 Bold Street, Apt. #4,
Hamilton, Ontario. L8P 1T2.

FEB 6 1991

January 24, 1991

Mr. Brian Hinkley
Alderman Ward 3
City Hall
71 Main Street, West
Hamilton, Ontario

Dear Mr. Hinkley:

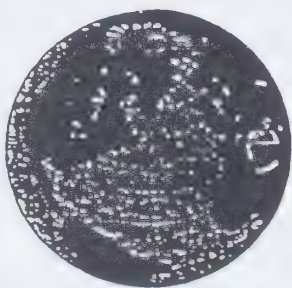
Attached is an article that I'm confident you'll find of great interest as I did. I've taken the initiative to respond to this article because I feel that a similar program has great potential to develop here in our city with the help of local supporters, public outreach and a creative team. I have contacted the Communications Manager of Imagination Market and she has been kind enough to send literature on the organization. (See attached copies.)

I am addressing this program to you, asking for your opinion and thoughts in hope that you may guide me through the proper avenues or to other organizations in the city that have the same objectives as myself which may find this information challenging and exciting. I trust that you will give some time to this since the re-use system is of extreme importance and I know your mandate for the election is to concentrate on cleaning up the air, water and land of Hamilton.

I look forward to your reply.

Sincerely,

Victoria
Victoria Munroe
20 Bold Street, Apt. #4
Hamilton, Ontario
L8P 1T2
525-2943



earth works



IN THE EARLY '80s, teachers Kate Hickock and Daphne Trivett moved with their families to Vancouver, B.C., from the U.S. East Coast, bringing with them a unique recycling/reuse program now known as the Imagination Market (I.M.). A concept borrowed from an artistic reuse program at the Boston Children's Museum called "Recycle," the Imagination Market supplies safe, industrial cast-offs, cut-outs and leftovers — otherwise destined for landfill — to creative people and projects in all parts of the world. I.M. stores and its mail-order business are getting people to look again at society's discards.

Originally intended as a mobile workshop at various events and festivals, the market's first outreach debuted at Vancouver's Paper Fair in 1981. Immediate success led to a need for storage and work space, and the city of Vancouver, appreciating the I.M. concept and outreach programs, donated a space for storage. Soon, a schedule of weekly in-house workshops and a mail-order system were established, and I.M. sought larger accommodations. In June of 1989, I.M. moved to its present 11,000-sq.-ft. space in Vancouver at 528 Powell St.

The Vancouver location (one of three including a Nanaimo, B.C., branch and another in Edmonton, Alb.) includes warehouse space and a materials prep room as well as a large store, the workshop area and an art gallery. Monthly exhibits at I.M.'s Found Art Gallery feature artists who use cast-offs and recycled materials. (A recent exhibit "Totally Rust," opened for an artist whose sculpture is based on rusticated, reclaimed items.) In the store, window displays and suspended vignettes prepared by the store staff show customers what can be done with I.M. materials. Another area houses individually priced "specialty items" such as adhesive neon scraps, imperfect beads or vibrant foam reclaimed from the grips of windsurfers.

A STAFF OF NINE full-time, 21 part-time and over 100 volunteers gathers up five van loads per week of scrap from more than

300 manufacturers, commercial printers, sign makers and other industrial producers of interesting cut-outs and leftovers. In the stores, patrons can choose from 500 bins of colored cardboard, tissue paper, shiny vinyl, scraps, punch-outs, leather, paper, plastic, fabric, wood and rubber. Scraps are transformed into almost anything — from costumes, spaceships and jewelry to artwork, toys and party decorations. But if the creative spirit should wane, an I.M. guidebook, "Imagibook," offers recyclers ideas and hints about connection methods, adhesive types and project examples.

Individuals, groups, families, students and seniors can join the market (\$10 for students and seniors, \$15 for adults and \$25 for families). As members, everything they buy in the store is half price. They also receive a newsletter, "The Imagineer," four times a year. Members and dabblers alike can participate in weekly workshops, and free (a contribution is sometimes suggested) outreach programs at fairs and festivals introduce the market's unique conservation approach to the public.

In outreach workshops, I.M. volunteers create a theme, like hats or flowers. According to Roxanne Pearce, communications manager for the market, that way children don't have to carry something they've made. The children can wear their creations, which then become part of the whole festive atmosphere. Patrons enter an I.M. area or booth, are given a quick explanation of how the materials are used and then have free rein to create. Often, when lines are long, there is some sort of time restraint, but I.M. tries to avoid any restrictions at all on creative recycling.



One of greater Vancouver's biggest shopping centers, Metrotown, employed the Imagination Market to create decorations for its first and second anniversary celebrations.

Continued

Themes for both in-house workshops and outreach programs run the gamut from musical instruments, Father's Day gifts, dragons, water toys, sun hats and puppets. "We try not to limit it," notes Pearce. "So in promoting water toys, I suggest floaters and sinkers and squishers and squirters. We don't want to just have them come in and build a boat." Adult workshops center around jewelry and more sophisticated, wearable things. Grown-up customers come to make gifts, projects for home or classroom, or to simply rediscover creativity in a casual, social setting.

THOUGH SCHOOL groups and teachers are a large part of the I.M. constituency, the Imagination Market is strongly involved



The Imagination Market's "reduce, reuse and recycle" philosophy involves creating decorations for not only shopping centers, but corporate functions, community events, etc. These centerpieces were commissioned for Vancouver's Children's Festival.

with the general public through events and festivals and drop-in workshops. Says Pearce, "That's becoming even more important as governments, corporations and groups are seeing the interest as well as the importance of environmental concerns — the fun side to recycling." Continues Pearce, "The creative part of our mandate is almost as important, or just as important as the recycling aspect. Our mission statement reads: 'a non-profit organization dedi-

cated to encouraging creativity and promoting waste awareness by reclaiming safe industrial discards for imaginative reuse.' It's very equally a concern for reclaiming and also creative reuse." I.M. lives by the three R's: "reduce, reuse and recycle." According to Pearce, the founders of the market believe recycling is the least important of those three. "In fact, we try to avoid the word recycling even though we call ourselves a non-profit artists and recycling foundation. We really aren't recycling, we're reusing."

An I.M. list of area printers, manufacturers and retailers donating things they would normally throw out has taken years

to develop. Now, I.M. receives several calls a day from individuals who think they have something the market can use. "People are starting to look at their cast-offs in different ways, and it's exciting to see," says Pearce. Additionally, if anyone contacts the Recycling Hotline in Vancouver, they're often directed to the market.

Gathering the materials requires a lot of legwork and phoning. "I'm told a lot of our suppliers think we're nuts," laughs Pearce. "They think we're a really strange group of people who get excited about sticky paper that has holes in it." Actually, those suppliers' waste costs are being cut by the market's free weekly pick up.

A LONG-TERM GOAL for I.M. is to expand nationally and eventually internationally. Through mail-order service, I.M. has sent reclaimed items to the States and as far as Romania and Poland. I.M. raw materials are sold in kits by mail order (a brochure lists possible contents), or by group size for hat or mask workshops. So while retail expansion is on hold (a board committee is conducting careful research), the mail-order branch of the market is fulfilling international outreach and education capacities.

Explains Pearce, "Expansion is very important, but we're also trying to advance our own area and get much more involved with adults. Another area we've found to be very successful is party decorations and contract decorations for shopping mall anniversaries or sales. We go in as a service and decorate for them." I.M. has been involved in such projects as corporate and government parties, room decoration and custom centerpieces, stage sets and art direction. One of greater Vancouver's largest shopping centers, Metrotown, has employed I.M. to create an environment for its first and second anniversary celebrations.

With a membership over 2,500, the Imagination Market recorded serving over 25,000 shoppers in 1989 and over 130,000 workshop participants. Weekly group bookings continue to grow and reflect the financial expansion I.M. has witnessed — from a gross revenue of \$7,000 in 1984 to a budget of over \$500,000 in 1989. Revenue over the last two years has jumped from \$350,000 to \$750,000.

It seems the enthusiasm of I.M.'s staff and volunteers is really reaching out, and this year, over 75-percent self-funded through sales of workshops at fairs and events, the service is free to the public. ■

Editor's note: For more information about the Imagination Market, contact: Roxanne Pearce, Imagination Market, 528 Powell St., Vancouver, BC V6A 1G9, CANADA: 604-253-1033.

January 9, 1991

ROXANNE PEARCE
Imagination Market
528 Powell Street
Vancouver, B.C.
V6A 1G9

Dear Ms. Pearce:

I was very much impressed with the article in the November issue of VM & SD, outlining the operations of the recycling/reuse program in your city. As a visual person, I'm very much familiar with what can be re-used and have been creating design elements in my home from materials I have purchased after scanning demolition yards. I really believe that there is a visual sector of the population out there that can now play an incredible role in restoring our environment because we see many more creative uses out of things than many of the average person. What your establishment has created is absolutely fantastic and congratulations to you all!

I think there is great opportunity to introduce Imagination Market concepts in my city and with so many families dealing with recession hardships, these workshops could create new family activities and introduce the conservation approach to the public at the same time. Please send me further information on your organization and hopefully we can discuss more about the program. You may contact me at the address below or call me at (416) 525-2943. I anxiously await your reply.

Sincerely,



Victoria Munroe
20 Bold St., #4
Hamilton, Ontario
L8P 1T2

What do people say about Imagination Market™?

"Seeing what people — big and small — make in here — brightens one's day! Long live the Imagination Market!!"

"This is an incredibly creative outlet for kids and adults. I love it."

"I really think this place is neat! If I was a kid, I'd live here all day!"

"A fine, positive way to foster kids' creativity!"

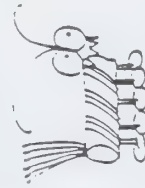
"Wonderfully magical, especially for youngsters and oldsters."

And what gets made?

Masks
Hats
Robots
Vehicles
Dolls
Mobiles
Puppets



Sculptures
Insects
Collages
Patterns
Boats
Flowers
Machines

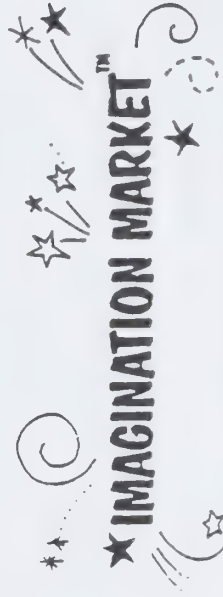


Practically Anything!

HOW WE'RE FUNDED

The Imagination Market maintains a high degree of self-sufficiency with the bulk of our revenue coming from the sale of children's workshops to the community. Festivals, Shopping Malls, Community events and businesses sponsor the Imagination Market Workshop as a **FREE** hands-on creative activity. Other revenue comes from sales, memberships and fundraising. Government job grants provide the remaining income to this viable and expanding non-profit business.

FROM YOU...



★ IMAGINATION MARKET™

Vancouver Headquarters

528 Powell Street
Vancouver, B.C.
V6A 1G9
253-1033

Nanaimo

308 Fitzwilliam Street
Nanaimo, B.C.
V9R 3A5
754-7036

Store Hours:

Thurs., Fri., Sat. and Sun. 11 am - 5 pm

Drop-In Workshop Hours:

Sat. and Sun. 12 Noon - 4 pm

Collections:

Mon. through Fri. 8:30 am - 4:30 pm

Creative Recycling

from

IMAGINATION MARKET™

a non-profit arts and recycling
association.

Photo by Adrian Zales

...TO US!



IMAGINATION MARKET WANTS YOUR CAST-OFFS!

Since 1982, the Imagination Market has been collecting scraps, offcuts, samples, old or excess stock and waste packaging from Lower Mainland businesses and manufacturers. Through the imagination of kids, these waste materials are transformed into spaceships, puppets, flowers, hats, animals... in fact anything that can be imagined can be made from recycled scrap. The Market is continually growing as is the demand for new materials. With your help we can meet this demand as well as promote recycling and increase creativity.

OUR BUSINESS IS PICKING UP

If you set your usable scrap aside, Imagination Market will pick it up regularly, at your convenience and without disrupting your operations. We currently collect from over 200 businesses who appreciate our reliability and efficiency.

WHAT HAPPENS TO THESE MATERIALS?

Once collected, materials are dropped off at our warehouse, sorted and prepared by teams of mentally handicapped volunteers either for sale through our non-profit store or for re-use in our many kids' community workshops and in our own FREE Drop-In Weekend Workshop.

WHY SHOULD YOU DONATE YOUR SCRAP?

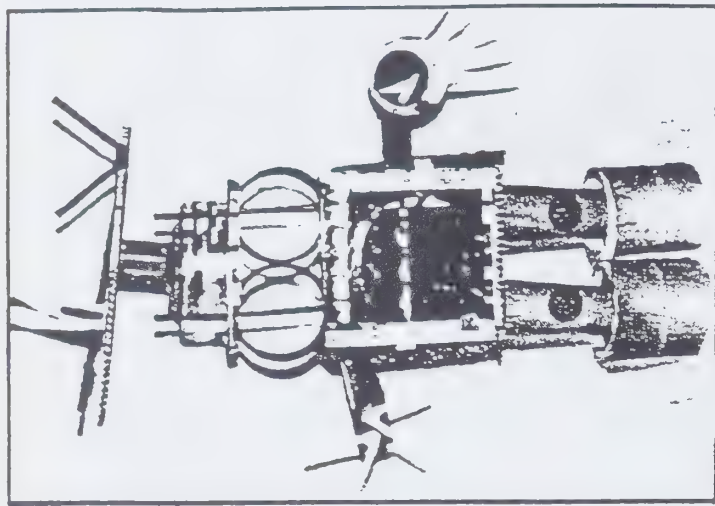
On the practical side it's obvious — you'll save on disposal costs. Ideologically, your support means employment opportunities, work training for the mentally handicapped, accessibly-priced art materials, increased recycling and most importantly, the joy and self esteem experienced by thousands of children as they discover their unique creativity.

OUR REPUTATION

"What originally had started as a department project on an experimental basis, has resulted in our enlisting the aid of the Imagination Market to clear our recyclable coloured stock on an on-going basis."

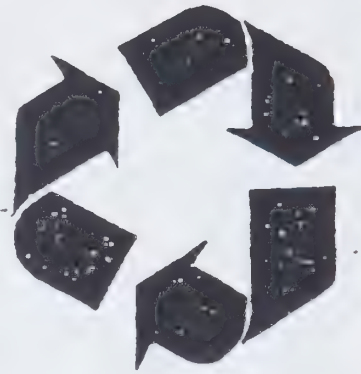
The Imagination Market has proved to be very reliable. Their staff are efficient, polite and have not missed a single pick-up to date."

B.C. TELEPHONE COMPANY



* Last year over 200,000 children and adults played with Imagination Market materials.

* Over 300 van loads of materials were diverted from the landfill.



IMAGINATION MARKET IS A PROUD MEMBER
OF THE G.V.R.D. RECYCLING COMMITTEE
AND B.C. WASTE MANAGEMENT

OFFICE OF THE REGIONAL CLERK
MEMORANDUM

FILE NO.	E309-20B
LETTER NO.	
APR 1 9 1991	

***** VT *****

TO: Mr. T. Gill
Acting Commissioner of Engineering

FROM: Mr. Ken Pidsadny
Legislative Coordinator

OUR FILE:
PHONE: 546-4304

SUBJECT: Correspondence dated February 19, 1991
from Councillor B. Hinkley re: The Arts
Community, the Environment, and Business

DATE: 1991 March 15

At its regularly scheduled meeting of March 14, 1991, the Chairman's Advisory Committee on Environmental Issues requested the following:

"That this item be referred to staff and that staff initiate with the Hamilton Arts Council, the feasibility of implementing a similar project in Hamilton-Wentworth, that is being addressed in Vancouver, B.C."

If you have any questions please do not hesitate to call me.

Thank you,

Ken Pidsadny

Ken Pidsadny

KP/kl
Attach:

kl

regional government request

*- we can assist with
contracts and legal
on legislation etc
I will be available*



Brian Hinkley Alderman Ward Three

CITY COUNCIL

Finance & Administration
Committee
-Chairman

Keep Hamilton
Clean Committee
-Chairman

Seniors Centre
Feasibility Study
-Chairman

Harbour Task
Force
-Chairman

Handbill
Sub-Committee
-Chairman

Hamilton Municipal
Retirement Fund
-Chairman

Hamilton Seniors
Council
-Liaison

Recreation
Committee
-Member

Hamilton Non-Profit
Housing
-Member

Regional Engineering
Committee
-Member

Regional Economic
& Planning Committee
-Member

Chairman's Environmental
Advisory Committee
-Member

Hamilton-Wentworth
Children's Aid Society
-Member

February 19, 1991.

RECEIVED

FEB 21 1991

REGIONAL CLERKS OFFICE

Mr. Ken Pidsadny,
Secretary,
Chairman's Advisory Committee on Environmental Issues,
The Regional Municipality of Hamilton-Wentworth,
119 King Street West,
Clerk's Office, 15th Floor,
P. O. Box 910,
Hamilton, Ontario.
L8N 3V9.

Dear Mr. Pidsadny:

Re: THE ARTS COMMUNITY ... THE ENVIRONMENT ... AND
BUSINESS

Please find enclosed, for your information, an
interesting project that is currently being operated in
Vancouver and Nanaimo, British Columbia.

I believe the enclosures clearly explain how the Arts
Community, the Business Community and the
Environmentalists can develop a worthwhile project for
the community.

This information was forwarded to me by Ms. Victoria
Munroe. Ms. Munroe is particularly concerned about the
artistic and environmental benefits to be developed by
such an undertaking.



Recycled Paper

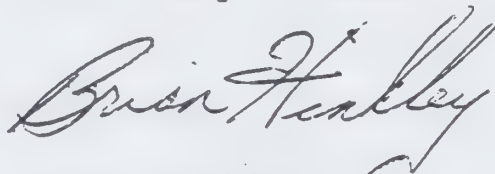
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FEB 6 1991

January 24, 1991

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City Hall
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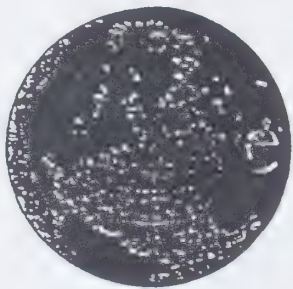
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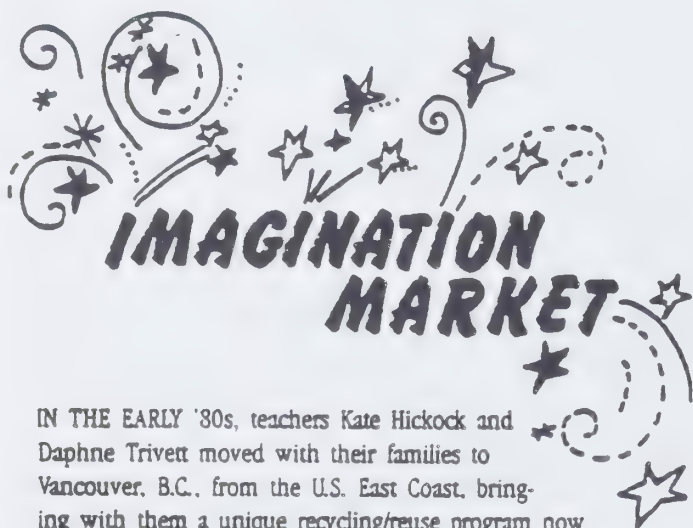
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earth works



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continued

earthworks, *continued*

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January 9, 1991

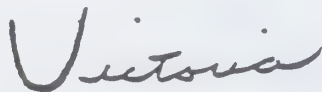
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Hats
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Vehicles
Dolls
Mobiles
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Sculptures
Insects
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Patterns
Boats
Flowers
Machines



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HOW WE'RE FUNDED

The Imagination Market maintains a high degree of self-sufficiency with the bulk of our revenue coming from the sale of children's workshops to the community. Festivals, Shopping Malls, Community events and businesses sponsor the Imagination Market Workshop as a FREE hands-on creative activity. Other revenue comes from sales, memberships and fundraising. Government job grants provide the remaining income to this viable and expanding non-profit business.

FROM YOU...



...TO US!!



Vancouver Headquarters
528 Powell Street
Vancouver, B.C.
V6A 1G9
253-1033

Nanaimo
308 Fitzwilliam Street
Nanaimo, B.C.
V9R 3A5
754-7036

Store Hours:

Thurs., Fri., Sat. and Sun. 11 am - 5 pm

Drop-In Workshop Hours:

Sat. and Sun. 12 Noon - 4 pm

Collections:

Mon. through Fri. 8:30 am - 4:30 pm



Creative Recycling
from

IMAGINATION MARKET™

a non-profit arts and recycling
association.

IMAGINATION MARKET WANTS YOUR CAST-OFFS!

Since 1982, the Imagination Market has been collecting scraps, offcuts, samples, old or excess stock and waste packaging from Lower Mainland businesses and manufacturers. Through the imagination of kids, these waste materials are transformed into spaceships, puppets, flowers, hats, animals . . . in fact anything that can be imagined can be made from recycled scrap. The Market is continually growing as is the demand for new materials. With your help we can meet this demand as well as promote recycling and increase creativity.

OUR BUSINESS IS PICKING UP

If you set your usable scrap aside, Imagination Market will pick it up regularly, at your convenience and without disrupting your operations. We currently collect from over 200 businesses who appreciate our reliability and efficiency.

WHAT HAPPENS TO THESE MATERIALS?

Once collected, materials are dropped off at our warehouse, sorted and prepared by teams of mentally handicapped volunteers either for sale through our non-profit store or for re-use in our many kids' community workshops and in our own FREE Drop-In Weekend Workshop.

WHY SHOULD YOU DONATE YOUR SCRAP?

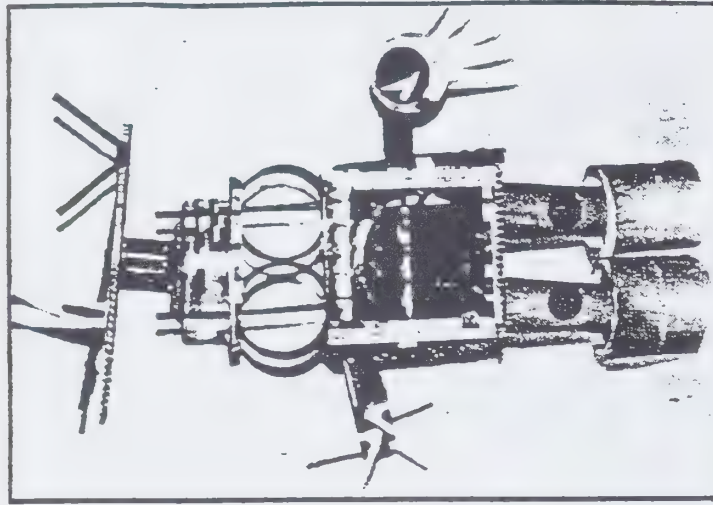
On the practical side it's obvious — you'll save on disposal costs. Ideologically, your support means employment opportunities, work training for the mentally handicapped, accessibly-priced art materials, increased recycling and most importantly, the joy and self esteem experienced by thousands of children as they discover their unique creativity.

OUR REPUTATION

"What originally had started as a department project on an experimental basis, has resulted in our enlisting the aid of the Imagination Market to clear our recyclable coloured stock on an on-going basis."

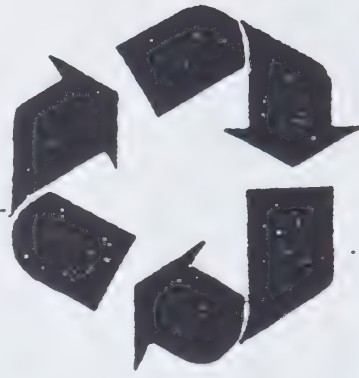
The Imagination Market has proved to be very reliable. Their staff are efficient, polite and have not missed a single pick-up to date."

B.C. TELEPHONE COMPANY



*Last year over 200,000 children and adults played with Imagination Market materials.

*Over 300 van loads of materials were diverted from the landfill.



IMAGINATION MARKET IS A PROUD MEMBER
OF THE G.V.R.D. RECYCLING COMMITTEE
AND B.C. WASTE MANAGEMENT

10.91(NPCA) cc: Ken-Environment

Ken-Environment
90-021
[Signature]

JUN 24 1991



Niagara
Peninsula
Conservation
Authority

Mediarelease

FOR IMMEDIATE RELEASE

Contact Person: C. Christine Jones, Director, Communications
(416) 227-1013 or 1-800-263-4760
May 3, 1991

2358 Centre Street
Allanburg, Ontario
L0S 1A0
416-227-1013
1-800-263-4760
Fax 416-227-2998

Environment Week Beach Clean-up

On Saturday, June 8, 1991, the Niagara Peninsula Conservation Authority and the City of St. Catharines are co-hosting a public beach and waterfront clean-up to commemorate Canadian Environment Week '91. Clean-up activities will take place at Municipal Beach, Lakeside Beach, Garden City Beach and the Waterfront Walkway.

The goal for this special event is to raise public awareness of beach debris and pollution sources impacting Lake Ontario and to educate the public about practical ways that we, as individuals, can contribute to the protection and conservation of our environment.

Beach clean-ups demonstrate the positive impact that private citizens can have on protecting the waterfront environment by fostering increased awareness of the effect of everyday activities on our local beaches. Data regarding the different types of debris collected during the beach clean-up will help citizens and policy makers reach their goal of a cleaner, safer lake environment and may influence the development of permanent solutions to the problems of waterfront pollution.

Volunteers interested in participating in the "St. Catharines Beach and Waterfront Clean-up" are asked to meet at Municipal Beach, 10 a.m. on Saturday, June 8, 1991. Municipal Beach is located at the end of Authur Street off Lakeshore Road in St. Catharines. Participants are encouraged to wear safety footwear, sunscreen and gloves.

For further information please contact: Cindy Toth, Pollution Control Plan Co-ordinator at (416) 688-5600 ext. 693 or Shelly Dunn, Supervisor, Conservation Services, Niagara Peninsula Conservation Authority at (416) 227-1013.



CITY COUNCIL

Brian Hinkley Alderman Ward Three

3a

Res: (416) 572-7500

Finance & Administration
Committee
-Chairman

Keep Hamilton
Clean Committee
-Chairman

Seniors Centre
Feasibility Study
-Chairman

Harbour Task
Force
-Chairman

Handbill
Sub-Committee
-Chairman

Hamilton Municipal
Retirement Fund
-Chairman

Hamilton Seniors
Council
-Liaison

Arts & Recreation
Committee
-Member

Hamilton Non-Profit
Housing
-Member

Regional Engineering
Committee
-Member

Regional Economic
& Planning Committee
-Member

Chairman's Environmental
Advisory Committee
-Member

Hamilton-Wentworth
Children's Aid Society
-Member

May 16, 1991.

Mr. Ken Pidsadny,
Secretary,
Chairman's Advisory Committee on Environmental Issues,
Clerk's Department,
Regional Municipality of Hamilton Wentworth,
119 King Street West,
15th Floor,
Hamilton, Ontario.
L8N 3V9.

Dear Mr. Pidsadny:

RE: HOUSEHOLD TOXIC WASTE DISPOSAL

Please place this letter on the next Agenda of the
Environmental Issues Advisory Committee.

I would like the opportunity to discuss with the
Committee a situation where seniors find themselves with
a difficulty in attempting to access this program. I
believe this matter should be discussed by the Committee.

I would like to propose a couple of suggestions which may
assist the seniors in our Community to participate in the
Household Toxic Waste Disposal Program.

Your co-operation in this regard is very much
appreciated.

Yours truly,

Brian Hinkley

Brian Hinkley,
Alderman, Ward 3.

BH:dd

c.c. Mrs. Barker, 14 Parkside Drive, Hamilton, Ontario.
L8S 3Y2.



Recycled Paper

3.b

COMMENTS AND RECOMMENDATIONS
BASED ON A INDEPENDENT REVIEW OF THE PROSPECTUS (DRAFT #2)
FOR THE PROPOSED COMPOSTING FACILITY

Prepared for:

Engineering Services Committee
Chairman's Advisory Committee on Environmental Issues (CACEI)
Engineering Department (Solid Waste Operations)

Prepared by:

Solid Waste Sub-committee (SWS) of CACEI

1. Rashne Baetz, Environmental Engineer
Rep. of Conserver Society of Hamilton & District
2. Linda Varangu, Manager, Ontario Waste Exchange and
Supervisor, Waste Reduction Centre, ORTECH
3. Craig Wardlaw, Coordinator for Contaminated Sediments
Treatment Technology Program
Wastewater Technology Centre, Environment Canada

Date Submitted: May 31, 1991

Solid Waste Sub-committee (SWS) Comments on Proposed Composting Facility

SUMMARY

The SWS fully supports the use of composting to assist diverting waste from the landfill and recovering a useful compost product.

However, we question even 50% of the input being mixed municipal solid waste (MSW) based on:

- the literature which strongly points to source-separated composting as a better alternative
- stringent new draft guidelines for compost quality in Ontario
- the bias in the Prospectus coupled with incomplete information and lack of data to support the focus on mixed MSW composting.

We recommend a more objective and complete analysis of the issues; and if mixed-MSW composting is still considered desirable, a smaller pilot scale project should be conducted to obtain data to verify its feasibility and the projected compost quality. The H-W facility should not be used as an 18 million dollar experiment.

I. INPUT TO FACILITY

1. Mixed MSW composting systems in Europe have resulted in poor quality compost and are being replaced by source separated composting systems where the waste generator/homeowner discards garbage and compostables (e.g., food waste) separately.^{1,2,3}
2. A facility very similar to the one proposed for H-W is in St. Cloud Minnesota. This facility has not found a market for its compost.² The data given in the Prospectus (Figure 10) for the St. Cloud compost indicates all but one of the heavy metals in this compost would fail the most recent draft Ontario guidelines.
3. It is implied in the Prospectus that because there is no Blue Box or hazardous waste program in St. Cloud, the extent of contamination in the H-W compost would be less. While this may prove to be true - will it be low enough to pass the standards and allow the compost to be useful? Data from a pilot project could provide an answer to these questions.
4. It should be kept in mind, also, that our blue box program does not have full participation; and the household hazardous waste program likely gathers a very small portion of the household hazardous waste generated. In spite of the fact that an expanded household hazardous waste program may be augmented, there needs to be a realistic estimate of how much hazardous waste will end up in the composting facility. Toxics can leach into the compostable fraction of the waste even at the home when items such as batteries and solvents are discarded together with kitchen waste.⁴ Therefore, the fact that there is no harsh treatment/size reduction of the waste at the front end of the facility, does not preclude contaminants from entering the compost.

continued on page 2 ...

5. The latest draft Ontario guidelines for compost quality are significantly more stringent than the draft Ontario guidelines (as of Fall 1990) cited in Draft 2 of the Prospectus. The latest guidelines also apply to the contaminants in each input stream to the facility, not just to the finished compost. Considering these guidelines it is highly unlikely that the input or final compost from a mixed MSW composting facility would meet the standards. Judging from these guidelines, it seems evident that the Ministry of the Environment is trying to encourage source separated waste composting and discourage mixed MSW composting.
6. The contingency plan to use contaminated compost as cover for landfill negates the primary benefit to be derived from compost, which is to replenish soil with organic matter.
7. Market contacts such as the Ontario Federation of Agriculture should be made now, not after the facility is built, to discuss with them their perspective on the usefulness of the final compost.

II. LACK OF DATA/INCOMPLETE INFORMATION IN PROSPECTUS

The Prospectus does not provide a complete, objective analysis on which to base sound decisions.

1. Cost of Alternative Systems - true costing is not provided on which to evaluate the alternatives.
 - a. The table: "Comparison of Short-List Options for Alternative Compost/Diversion Systems" (Figure 5-A) incorporates a ranking system based mainly on the opinions of the project team. The strong bias throughout the report to justify the primary focus on a mixed MSW composting system is exemplified by this table. For example, it gives equal ranking to the "Projected Product Damage and Contamination" for both the mixed MSW and the three stream source separated composting systems, while this has been shown not to be the case in the literature.^{1,2,3}
 - b. Instead of such a comparison of alternative systems, a cost-benefit analysis should be done where estimated costs (in dollars) of the various systems are presented; subsequently, qualitative statements could be stated, rather than quantified and added/divided, etc.
 - c. Costs need to be presented more objectively. For example, a three-system (Blue box, wet compostables and remaining garbage) is given double the cost ranking as a mixed MSW composting system. This may prove to be untrue. To objectively evaluate a three stream system, costing should be done for various scenarios which would prevent paying extra collection costs for a third pick-up such as retrofitting trucks so that they can collect garbage in one compartment and compostables in another, or providing pickup for garbage one week and compostables the next. Both these types of collection have been used in Europe.¹
 - d. Also, the cost of the process equipment and separation equipment (as well as size of equipment) for a composting system that accepts source separated and selected stream compostables rather than mixed MSW may be significantly reduced and should be evaluated.

2. Composting Technology (Section 2.5 of Prospectus)

There is inadequate background information and no costs provided to compare alternative composting technologies, and on which to base the choice of an in-vessel rotary drum/high rate aerobic channel system.

III. PUBLIC CONSULTATION (Section 7.0 of Prospectus)

1. The public was appraised of this project through open houses prior to the completion of the draft Prospectus. As the draft Prospectus is now complete and some of the plans regarding this facility have changed since the time of the open houses, another presentation to the public should be made based on the latest draft Prospectus.
2. A Citizen's Advisory Committee for the Proposed H-W facility was brought together for the first time in March 1991. This committee should have been involved from the outset of the development of the Prospectus, not after it was complete.

REFERENCES

1. Scheinberg, A. and D. Smoler, "European Food Waste Collection and Composting Programs", Resource Recycling, Dec. 1990.
2. M. M. Dillon Ltd. and Cal Recovery Systems Inc., "Composting - A Literature Study", prepared for Ontario Ministry of the Environment, May 1990.
3. Melcher, W. A., "Quality Criteria for Composts, with Emphasis on Limits of Heavy Metals Content in New European Standards", prepared for the Greater Vancouver Regional District, August 1990.
4. Van Roosmalen, G. R. E. M, et al, "Heavy Metal Sources and Contamination Mechanisms in Compost Production", Resources and Conservation, 14 (p. 321-324), 1987

* Note: Specific comments by Craig Wardlaw are attached.

* Attachment

MEMO

TO: Rashne Baetz
Chairperson,
Solid Waste Subcommittee

May 23, 1991

FROM: Craig Wardlaw

SUBJECT: Hamilton-Wentworth Composting Facility Prospectus

As requested I have reviewed the above mentioned document and I have comments as follows. I mentioned most of my concerns to you at our meeting the other day so these comments should sound somewhat familiar. I have also included my marked up copy of the document. You may submit my comments as is or incorporate them into "Committee" comments.

General Comments

1. I have some concerns with the purpose of the document and also the way it is structured. It is called a "Prospectus" but it is closer to a consultant's report in format. However it is missing many of the elements one would expect in a good consultant's report. I do not get a sense of the overall purpose of the document and this makes it hard to comment on it. Also confusing is Section 1 "Executive Summary" which is more like an introduction than a summary. Section 1 is very poorly written, confusing and misleading in some places which is a poor start to an important document. Section 3 consists of one table. There needs to be some text added to describe the environmental impact assessment process. What conclusions were drawn from this exercise.

2. I get the very strong sense that this report in general is window dressing for decisions that were made some time ago without any consultation or thorough examination of alternatives. The justifications for most of the choices of options are extremely thin and obviously the author's bias. I make several references to specific points in my "Specific Comments" section.

3. The public consultation process appears to be stalled. Public meetings were held in November and December 1990. Are more meetings planned? The public will want to comment on the plan now that "options" have been "selected".

4. A lot of statements are made throughout which are not referenced and which I find questionable in either accuracy or veracity.

5. I am very impressed by the flexibility which the proposed facility will have to handle separate waste streams and to conduct experiments. This is an excellent feature at this stage.

6. There is not enough solid information in this report which would allow me to support or disagree with the general choices of options. What is needed is good, clear, complete assessments of alternatives using standard cost/benefit or other selection methods.

Specific Comments

Page

Comment

1

- another word for "premise" is "assumption" and I find that the "premises" listed are without substantiation; these points sound more like the terms of reference given to the consultant by the Region

Page	Comment
1	- the "criteria" listed sound more like "goals" to me and again might be something outlined in the Region's terms of reference
2	- the cost of the project is stuck in a totally inappropriate sentence, as if it were being obscured deliberately - where does the 70% volume reduction figure come from? why is only weight reduction discussed later on in the report (P. 32)? - why is so much emphasis placed on improving agricultural land when the compost from a mixed waste facility probably won't be allowed to be applied to agricultural land due to toxics contamination?
3	- the second paragraph of this page is total nonsense and should be deleted - "... organic matter is biotransformed to <u>simpler</u> compounds and <u>biomass</u> ..."
5	- 2 day storage at site is dangerously low. Is more space available elsewhere?
6	- sentence starting "As a successful model" might be better worded "If successful, this plant can be replicated so that the total system will eventually divert up to ..." - in this same sentence the figure 50% is used to describe the diversion from landfill. Why is this different from the 70% predicted on page 27
15-16	- the in-vessel system has been 'chosen' with apparently very little comparison of alternatives. Is this a final decision or should this be described as the "preferred alternative"? What about all the factors used in typical engineering decisions such as cost, technical factors, public acceptance, etc.? If the reasons for selection are solely the two mentioned on page 16 then the Region paid too much for this study. Where is the proof for these two statements? Why weren't all the alternatives compared on an equal footing?
16	- the heading for Section 2.6 is "Mixed MSW Composting" which leads me to think that this was the consultant's choice before this section was even written. This section is more-or-less about the <u>different</u> compost collection techniques and the selection of the preferred method. This section is confusing also because the matrix selection process is not mentioned up front
17	- reference is made to the Guelph facility - who visited the site and what other observations were made (perhaps some positive ones !!!)
18	- another unreferenced statement at the bottom of the page. Who doesn't consider the handling demands of the dry fraction to be desirable?
Fig. 5-A	- this is a very incomplete decision matrix. There are quite a few other factors (such as toxic contamination potential, public perception, potential for process problems, environmental assessment) which could have been included. Where are the background facts to justify the rankings given in each category? I don't see any cost estimates for the different systems? What about weighting the factors?

Page	Comment
31	- in the "Input Stream summary the "Recycled activator" should be either "activator" or "recycled compost"
32	- it would be nice to have the volume estimates as well as the weights for the inputs and outputs
34	- "Preparation" section should also talk about the preparation of the MSW not just the yard waste
46	- the discussion of uptake of contaminants from soils is somewhat out of place. I do not feel it is the REgions role to try to justify the application of compost to agricultural land - this should be left to agricultural and health experts. The Region should only be concerned that their compost meets the necessary criteria for application to specific soils. Can the Region reliably predict what the pH of the soil might be at any one receiving site? Can the Region control future pH levels which could change the leachability of metals? No they can't. - the section on the exponential nature of the pH scale is totally irrelevant and should be removed
50	- bottom of the page - yes it is attractive to compost mixed products but it is also attractive to ban them (where feasible) so that the entire product is compostable. Diapers and most packaging could easily be made out of 100% compostable fibre products.
52	- again no reference for statement that "... public health is not a cause for concern"

Craig

P.S. I have included a copy of the City of Guelph Wet/Dry Pilot Project Preliminary Findings Report of April 1991 for your retention.



THE REGIONAL MUNICIPALITY
OF HAMILTON - WENTWORTH

3.c

May 29, 1991

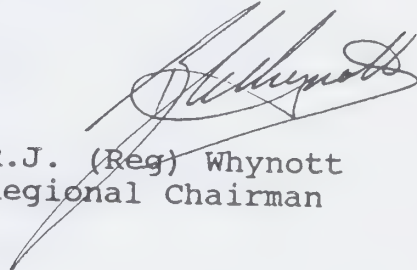
Dr. P. Boldrini
91 Gibson Avenue
Hamilton, Ontario
L8L 6J9

Dear Dr. Boldrini:

This will acknowledge your letter of May 24, 1991.

As requested by you, I am returning herewith the material you forwarded to me on April 16, 1991.

Yours very truly,



R.J. (Reg) Whynott
Regional Chairman

Encls.

cc - K. Pidsadny
Secretary
Environmental Issues Sub-Committee

Dr. P. BOLDRINI
Environmental Chemist
(416) 549-6319

91 Gibson Ave.
Hamilton, Ont.
L8L 6J9

Reg Whynott
Regional Chairman
Regional Municipality of Hamilton-Wentworth
Hamilton

May 24, 1991

Dear Mr. Whynott,

I regret to have to withdraw my request presented to you on Apr. 16 1991.

Unfortunately, after May 9th, when I appeared in front of the Chairman's Advisory Committee on the Environment, I tried unsuccessfully two things:

- On professional grounds I expressed to your executive assistant my apprehension about appearing in front of the Energy Subcommittee, where one Ont. Hydro employee sits. I was never answered back on this point.
- Twice I also tried to contact Barry Thompson to ask when, where and how the subcommittee would have met. He did not return the call.

Under these uncertain conditions I do not accept to proceed and ask you to return my brief. I would not permit any other use of the latter except the one I had envisaged on Apr. 16.

With thanks and kind regards.

Sincerely,

P. Boldrini

P. Boldrini
Executive Director
Ecosystem Approach Group



THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Planning and Development Department
119 King Street West, 14th floor
Hamilton, Ontario
(416) 546-4186 Fax (416) 546-4364

3d

P.C

L8N 3V9

May 13, 1991

Refer to File No.

Attention of

Your file No.

Mr. Daryl Cowell
Geomatics International
3370 South Service Road
Burlington, Ont.
L7N 3M6

Re: Marsh Land, King St. East/
Olympia Drive Area, Town of Dundas

Dear Mr. Cowell

Regarding the above, the Chairman's Advisory Committee on Environmental Issues at its May 9, 1991 meeting dealt with the attached material from the Crozier-Organs. The Committee referred this issue to Regional Planning Staff for further investigation.

The site identified by the Crozier-Organs is not shown as a provincially or regional significant environmentally sensitive area in the recently produced "ESA Development Sensitivity Study" prepared by your firm for this Region.

To assist in resolving this matter could you please review your research material for this area to determine if this marsh site has any significance that would warrant its identification and protection as a sensitive area (provincial, regional, or local).

Before you commence any work on this matter that would incur billing costs to this Department, please contact me (546-4178) with an estimate of these costs. The Crozier-Organs also indicated that if you visit the site they would appreciate accompanying you.

Enclosed are the airphoto contact prints of the area utilized by your firm during preparation of the ESA study. Please return these when you are finished.

If you have any questions concerning the above, please call. I appreciate any assistance you can provide us towards resolving this matter.

Yours truly,

W. R. Pearce, M.C.I.P.
Head - Strategic Planning Division

cc. Vic Abraham
Mary Gallagher

HAMILTON PUBLIC LIBRARY

3e

55 YORK BOULEVARD, BOX 2700, STATION A, Envoy Address: HAM.PUB.LIB.
HAMILTON, ONTARIO L8N 4E4 Tel: (416) 529-8111, Fax: (416) 529-5326

RECEIVED

MAY 13 1991

REGIONAL CLERKS OFFICE

May 2, 1991

Committee Secretary
Chairman's Advisory Committee on Environmental Issues
Regional Municipality of Hamilton-Wentworth
Regional Clerk's Department
119 King Street West
Hamilton, Ontario L8P 4T9

Dear Committee Secretary:

Thank you for sending materials for the Environment Week display at Hamilton Public Library April 22-28.

The display attracted a steady stream of visitors during the week and the materials you sent were very popular with the public.

During Earth Week the Hamilton Public Library launched a series of "Pathfinders" on the Environment - brochures that help people find information on particular issues. The two examples enclosed cover environmental information for consumers and environmental law and policy in Canada. Forthcoming Pathfinders in this series will cover such issues as endangered species, hazardous substances, global warming, environmental literature for children, and air, water, and noise pollution. Please let me know if you would find these helpful in the work of your organization.

Your participation in the Environment Week display contributed a great deal to its success. Please do not hesitate to get in touch with Hamilton Public Library for "environmentally friendly" information service.

Sincerely

Wendy Newman

Wendy Newman

District Coordinator, Central/East

CHIEF EXECUTIVE OFFICER: Judith McAnanama

LIBRARY BOARD: Chairperson - Margaret MacGillivray, Vice-Chairperson - John Syko;
Linda Church, Perce Diebel, Jackie Isbester, Doreen Johnson, Alderman William McCulloch, Tom Radigan,
Michael Riley, Peter Rogers, Alderman David Wilson

ENVIRONMENTAL LAW & POLICY



DESIGNED & PRINTED BY THE PUBLIC RELATIONS DEPT. - Hamilton Public Library

There is information on the environment in books, magazines, newspapers, government documents, videotapes, pamphlets, and clippings. This guide will help you generally in searching for these resources throughout the Hamilton Public Library System. The individual titles listed below are held at the Central Library. Please refer to your neighbourhood branch for specific materials there.

SUBJECT CATALOGUE

Books are listed in the subject catalogue under the following headings:

ENVIRONMENTAL LAW
ENVIRONMENTAL POLICY
See also the sub heading "LAW AND LEGISLATION" with various topics, e.g. ACID RAIN-LAW AND LEGISLATION; AIR POLLUTION-LAW AND LEGISLATION;

RECENT BOOKS INCLUDE:

Howell, Shelley.
How to fight for what's left of the environment. 1985.
344.71046 HOW

Law Reform Commission of Canada.
Crimes against the environment. 1985.
344.71046 LAW

Rovet, Ernest.
The Canadian business guide to environmental law: protect yourself! protect us all! 1988.
344.71046 ROV

Silver, Cheryl Simon and DeFries, Ruth S.
One earth, one future: our changing global environment. 1990.
363.7 SIL

Worldwatch Institute.
State of the world: a Worldwatch Institute report on progress toward a sustainable society. 1990.
338.9 STA

Richardson, Boyce.
Time to change: Canada's place in a world in crisis. 1990.
971.0647 RIC

REFERENCE

"Environmental law." in The Canadian Encyclopedia.
R971.00321 CAN

PERIODICALS

Useful indexes to check for periodical and newspaper articles are:

Canadian Business Index*
Central - Second Floor
Canadian Magazine Index*
Central - Third Floor
Canadian News Index*
Central - Third Floor
Canadian Periodical Index
Central - all subject floors

* These indexes may also be searched on CD-ROM.

The following periodical articles can be located under subject headings such as *Environmental protection - Laws and regulations; Canada - Environmental policy; Ontario - Environmental policy.*

"Quebec, Ontario agree to unify pollution laws." Globe and mail.
November 25, 1989, p. B3.

"Battling crimes against nature." Time, Canadian edition,
March 12, 1990, pp. 68-69.

Howlett, Michael.
"The Round table experience: representation and legitimacy in Canadian environmental policy-making." Queen's quarterly, v.97(4) Winter, 1990, pp. 580-601.

Wallace, Bruce.
"A green Tory (Green Plan)." Maclean's, December 24, 1990, pp. 12-13.

"Regulatory and non-regulatory approaches to environmental protection." Canadian public administration, v.33(1) Spring, 1990, pp.17-36.

ENVIRONMENTAL I S S U E S



GOVERNMENT DOCUMENTS SECTION

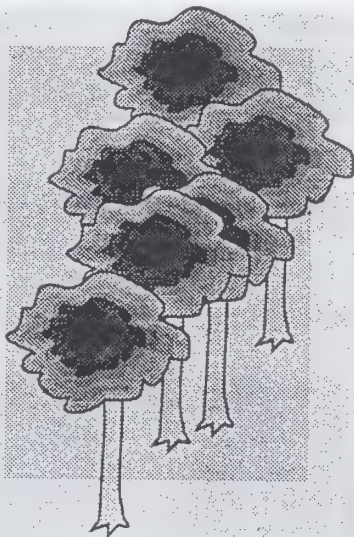
Government documents are located on the Second Floor of the Central Library and are for use in the library only. Ask staff for help in locating materials.

Some of the acts administered by Environment Canada are:

Canada Water Act
Canada Wildlife Act
Canadian Environmental Week Act
Migratory Birds Convention Act
National Parks Act

Acts administered by the Province of Ontario include:

Conservation Authorities Act
Environmental Assessment Act
Environmental Protection Act
Ontario Water Resources Act
Pesticides Act



RECENT GOVERNMENT DOCUMENTS INCLUDE:

Canada. Department of Justice.
Use of criminal penalties for pollution of the environment: a selective and annotated bibliography of the literature. 1989.

CA1 J 89 U71

Canada. Environment Canada.
Canada's green plan for a healthy environment. 1990.

CA1 EP 90 C13

Ontario. Ministry of the Environment.
Study of the Ontario environmental protection industry. 1989.

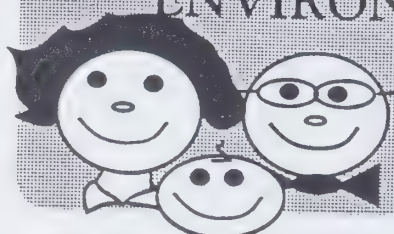
CA2 ONEV 89 S75

PERIODICAL TITLES OF INTEREST

Environment Update
State of the Environment Reporting Newsletter
Sustainable Development

For further "Environment friendly assistance", remember to ask the Information Staff!





ENVIRONMENTAL INFORMATION FOR CONSUMERS



DESIGNED & PRINTED BY THE PUBLIC RELATIONS DEPT. -  Hamilton Public Library

There is information on the environment in books, magazines, newspapers, government documents, videotapes, pamphlets, and clippings. This guide will help you generally in searching for these resources throughout the Hamilton Public Library System. The individual titles listed below are held at the Central Library. Please refer to your neighbourhood branch for specific materials there.

BOOKS

Books are listed in the Subject Catalogue under the following subject headings:

ENVIRONMENTAL PROTECTION - CITIZEN PARTICIPATION
POLLUTION
REFUSE AND REFUSE DISPOSAL
RECYCLING (WASTE, ETC.)

You can also find information under specific subject headings, followed by ENVIRONMENTAL ASPECTS, for example:

SHOPPING - ENVIRONMENTAL ASPECTS

SOME RECENT BOOKS INCLUDE:

The Canadian green consumer guide. 1989.
640.730971 CAN

Caplan, Ruth. Our earth, ourselves: the action-oriented guide to help you protect and preserve our planet. 1990.
363.700973 CAP

Johnson, Lorraine. Green future: how to make a world of difference. 1990. 363.7 JOH

Gordon, Anita. Suzuki, David. It's a matter of survival. 1990.
304.28 GOR

Lamb, Marjorie. 2 minutes a day for a greener planet. 1990.
363.706 LAM

MacEachern, Diane. Save our planet: 750 everyday ways you can help clean up the earth. 1990. 333.72 MAC

Morgan, Judy. The clean water book: a guide to reducing water pollution in your home and neighbourhood. 1988.
628.168 MOR

Steger, Will. Bowermaster, Jon. Saving the earth: a citizen's guide to environmental action. 1990.
363.70525 STE

ARTICLES

Look for periodical and newspaper articles in indexes such as:

Canadian Business Index* Central Library — 3rd floor

Canadian Magazine Index*

Central Library — 3rd floor

Canadian News Index*

Central Library — 3rd floor

Canadian Periodical Index

Central Library — all floors

ALL FLOORS

Readers' Guide to Periodical Literature
Central Library

* These indexes are available on CD-ROM. Ask the staff if you need help searching.

LOOK UNDER HEADINGS SUCH AS:

ENVIRONMENTALLY SAFE PRODUCTS
ENVIRONMENTAL PROTECTION
ENVIRONMENTAL MOVEMENT
ENVIRONMENTAL LABELING
ORGANIC GARDENS AND GARDENING
RECYCLING (WASTE, ETC.)

You can also find information under specific headings followed by ENVIRONMENTAL ASPECTS, for example:

DIAPERS — ENVIRONMENTAL ASPECTS
PESTICIDES — ENVIRONMENTAL ASPECTS

SOME RECENT ARTICLES INCLUDE

Cusack, Veronica.

"The Toronto green pages: let your fingers do the walking through our selection of eco-friendly stores, products, services and publications." Toronto life, v. 24(15), October 1990, pp. 44-47.

"Earthly goods: how green are 'green' products? Are we being decent or duped when we buy them?" Canadian consumer, v. 20(7-8), July-August 1990, pp. 9-22.

DiChristina, Mariette.

"How we can win the war against garbage." Popular science, v. 237, October 1990, p. 57-60.

ENVIRONMENTAL I S S U E S

ENVIRONMENTAL ISSUES

BROWSE IN SUCH PERIODICALS AS:

Harrowsmith
Nature Canada
Ontario conservation news
Ontario recycling update
Organic gardening

REFERENCE BOOKS

Look in encyclopedias such as The Canadian Encyclopedia under headings beginning with ENVIRONMENT(AL) and under such specific headings as:

POLLUTION
RECYCLING
SOLID WASTE
WASTE DISPOSAL

GOVERNMENT DOCUMENTS

Government documents are located on the Second Floor of the Central Library. They are for in-library use only. Ask staff for help in finding material.

Some recent government documents include:

Environment Canada. What we can do for our environment: hundreds of things to do now. 1990.
CA1 EP W38 1990

Ontario. Advisory Council on Women's Issues.
Action on Issues: women and the environment. 1990.
C CA2 ON SD700 A13

Keep Hamilton Clean Committee. Spotless, Hamilton's litter watchdog, presents the 1991 colouring calendar. 1990
Urban/Municipal CA4 ON HBL J77 91 S63

VIDEOTAPES

Videotapes are available in the Audio-Visual Department on the first floor of the Central Library.

Some of the environmental videotapes available include:

REDUCING, REUSING, and RECYCLING
H2 OVERVIEW
HOLE IN THE SKY
ENERGY CONSERVATION (home improvement series)

PAMPHLETS AND CLIPPINGS

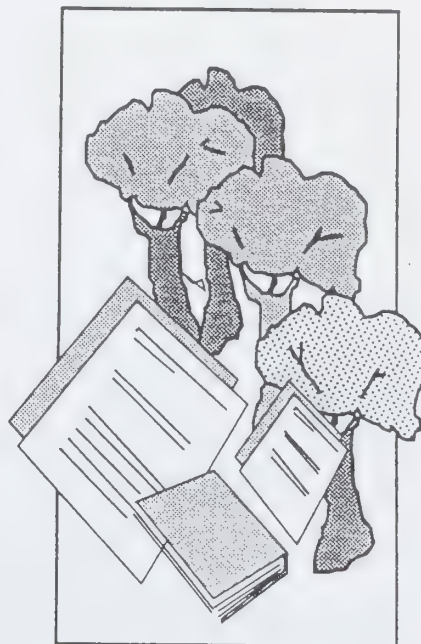
Look for short articles, brochures, and newspaper clippings in the Clipping Files under headings such as:

RECYCLING - PAPER
2nd floor
RECYCLING - SOFT DRINKS
2nd floor
COMPOST
2nd floor

ENVIRONMENT
3rd floor
POLLUTION
3rd floor
WASTE MANAGEMENT
3rd floor



FOR FURTHER ENVIRONMENTALLY FRIENDLY ASSISTANCE, ASK THE INFORMATION STAFF!



36

REGION OF HAMILTON-WENTWORTH

- INFORMATION -

DATE: 1991 May 16
E307-01 P. K. Dunn

REPORT TO: Mr. Chairman and Members
Chairman's Advisory Committee on Environmental Issues

FROM: L. D. Turvey, P.Eng.
Commissioner of Transportation/
Environmental Services

SUBJECT:
Underground Storage Tanks

L. D. Turvey

L. D. Turvey
L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

N/A

- page 2 -
May 16, 1991

Cont'd....

Underground Storage Tanks

BACKGROUND:

The most common underground storage tanks found throughout the Region are those that contain hydrocarbon fuels. Fuels Safety Branch of the Ministry of Consumer and Commercial Relations have jurisdiction over this type of underground tank and have full control over their installation, removal and testing. They have an office in Hamilton and their telephone number is 521-7559. The Ministry of the Environment has jurisdiction over any underground storage tanks (with the exception of the above) that is or has the capability of adversely affecting the environment. The problem of leaking underground fuel storage tanks is usually addressed by both Ministries. The Ministry of the Environment has an office in Hamilton and their number is 521-7640.

The Regional Municipality of Hamilton-Wentworth is the owner of underground storage tanks and they would be controlled by the appropriate Ministry. The Region, by virtue of its sewer system, does receive discharges from leaking underground storage tanks. These discharges usually enter the sewer by migration from the spill site and infiltration of the system. The agent for the Region under such circumstances is the Sewer Use Control Office, which can be reached at 545-0804.

Enclosed is a summary of the legislation under which the above mentioned authorities act with regard to this matter.

PKD:eb

c.c. R. Whynott, Regional Chairman
M. Carson, C. A. O.

THE MINISTRY OF CONSUMER AND COMMERCIAL RELATIONS-Fuel Safety
Branch:

Gasoline Handling Act
Chapter 185 Revised Statute of Ontario 1980
Amended 1989

Gasoline Handling Code
Regulation 439
Revised Legislation of Ontario 1980
Amended 458-89

*The above legislation covers Fuel types 1,2 and 3.

Energy Act, Revised Statute of Ontario 1980,
Chapter 139
Revised 1981

Oil Code
CSA B139-1976
Ontario Regulation 288
Revised 1980

**This Act and Code is enforced when the underground storage tank is found in/on the
properties of a private residence.

THE MINISTRY OF THE ENVIRONMENT

Environmental Protection Act
Revised Statute of Ontario 1980,
Chapter 141 as amended

Ontario Water Resources Act
Revised Statute of Ontario 1980
Chapter 361 as amended

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Sewer Use By-law R89-049

3g.

RECEIVED

MAY 9 1991

REGIONAL CLERKS OFFICE

FROM THE OFFICE OF THE CHAIRMAN

TO:

Ken Pidsadny

DATE:

May 8/91

1.

FOR

Environmental Issues

AGENDA

2.

COPIES ALSO FORWARDED TO:

Councillor Bentice, Chairman

RECEIVED APR 24 1991

Crozier-Organ
12B Matilda St. N.
Dundas, Ontario
L9H 2Y8

Earth Day, 1991

Mr. R. J. Wynott
Regional Chairman
Regional Municipality of Hamilton-Wentworth
Box 910
Hamilton, Ontario
L8N 3V9

Dear Sir:

We are writing in regard to a marsh that is located on regionally owned property in the Town of Dundas, which property is apparently going to be developed in the near future. We are enclosing a letter written by us to the Town of Dundas along with copies of a bio-survey of the marsh conducted by Christine Bishop of the Hamilton Naturalist Club, photographs taken of the marsh, a map showing the exact location of the marsh and news articles regarding the proposed development of this area. Below is an outline of our concerns regarding the preservation of this area.

INTRODUCTION

Our areas of concern regarding the marsh's survival are as follows:

Development: There is already a new baseball field on one side of the marsh which means increased traffic both of cars and people.

The proposed development of 11 acres on Olympic Drive and King Street could have a deleterious effect on the marsh and would also mean increased traffic even should the development be innocuous in terms of its impact on the marsh.

Composter: The proposed composter, while prima facie an aid in protecting our general environment (although several people have raised concerns, particularly in regard to Proctor and Gamble's involvement), also means increased traffic. We are also not satisfied that the composter will not leak material that could be harmful to the delicate ecological balance of the marsh.

The amount of construction that will take place while the compostor is being built and while whatever other development is going on will undoubtedly disturb this wetland ecosystem.

Fill: Fill being dumped into the marsh by the Region.

Zoning: This property is zoned as a flood plain therefore how can one build on it without interfering with the marsh's ability to channel flood water?

Illegal Dumping: The marsh needs to be kept secure from illegal dumping activities while at the same time ensuring access for wildlife. As well, the marsh requires a clean-up to remove present debris.

CASE FOR SAVING THE MARSH:

We suggest that the Region examine this marsh with the view to its preservation. We point out that Bruce Duncan of Hamilton Region Conservation Authority has included a study of this marsh along with the study of Lake Jo-Jo, done at the request of the Region, and found that the marsh is worth preserving.

We believe that this marsh is part of the original Cootes Paradise system. Wetlands (which include swamps, bogs, marshes, fens and sloughs) are intrinsically important to a healthy natural environment and are the source of a healthy water system. As such, this marsh situated within an urban area has an important role to play.

There were once 50 million hectares of wetlands in Ontario -- two million of them in the southern part of the province. Less than a quarter of these latter remain, and they are disappearing fast. In recent years, the abuse of wetlands has meant the drying-up of wells and general unreliability of water supplies. Developers drained swampy areas to build subdivisions. Waterfowl populations have dwindled drastically because of loss of habitat; animals like muskrats, frogs, fish, snakes, and many rare plants have lost their natural habitat.

Marshes act like sponges, soaking up surplus water during spring run-off and after heavy rains. They retain the water during peak periods and release it through dry months to maintain flow in rivers, to sustain the levels of ponds and lakes, and to seep deep into the ground feeding wells and community water supplies. Unchecked by the sponge-like function of wetlands, water can race downstream after spring thaws and heavy rains causing floods. Pollutants such as phosphates and nitrates are absorbed in wetlands by natural biological processes. They act as filters, reducing the damage done by agricultural and roadside runoff.

(From a Conserver Society article on wetland ecosystems, Dundas Star Journal - November 7/90)

We also quote the following from an article in the Dundas Star Journal of March 20, 1991, written by Brian McHattie, Conservation Director, Hamilton Naturalist Club and member of your Environmental Advisory Committee, regarding The Hamilton-Wentworth Biological Inventory Project:

"It is well known that protecting and enhancing green spaces improves the quality of life for humans [and animals]. For example, tourists are often attracted to areas which blend urban features with preservation and respect for environmentally-sensitive areas. This can contribute to our economy in a positive way. Maintaining woodlots and wetlands can significantly improve the state of the regional and global environments. Wetlands remove nutrient loadings in our water-courses and control water levels, and woodlots contain many acres of trees which are critical in minimizing the "greenhouse effect."

We believe decisions made in the next ten years will make or break the extent to which future generations can appreciate the diversity of wildlife we now enjoy in southern Ontario."

We suggest that the destruction of this wetland, either actively through development and filling in or inactively through neglect, could adversely affect Cootes Paradise. We wish to point out that Lake Jo-Jo and Cootes Paradise are prime examples of what can happen to marshes if they are not properly protected.

SURVIVAL OF THE MARSH:

For several years the Region has been dumping fill from excavation work into this marsh and as a result the marsh is slowly being buried. The new Volunteer Field is situated in an area where fill had been previously dumped and ploughed out into the marsh. Since the Region can no longer bring fill in to this side of the marsh, it has been dumping fill on the other side of the marsh directly across from Volunteer field. This fill is brought up a small road from Olympic drive, dumped and pushed off the higher level of ground and into the marsh. Several small trees have been knocked down and killed as a result of this. If this activity continues, we suggest that a bottle-neck effect will occur and one part of the marsh will be cut off from the other. A visit to the marsh in February showed us a shocking amount of fill dumped in this area although we had contacted Gord McCallum of the Sewer and Water Dept. in September and requested that the fill be dumped on higher drier ground and not into the marsh. That same visit also showed water backing up on one side of the fill. Since this is a flood plain, it seems logical that such backing up of water ought not to be allowed.

The original marsh, which we believed filled the area between Lake Jo-Jo and King St. East, and Olympic Drive and the Dundas Physical Services Building area at one time, has been filled in over many years. The berm to the north and the area on which the transfer station is situated we believe is also comprised of fill. The tiny marsh that remains is all that is left of what was, probably not long ago, a thriving marsh. Unless this dumping of fill is halted permanently this marsh will become completely choked.

Although Gord McCallum of the Sewer & Water dept. has assured us that fill from excavation work has been stopped as of December, we are concerned that the stoppage of fill is merely temporary over the winter and will continue again in the spring when excavation and road work resumes.

The filling in of the marsh and the increased traffic in people and vehicles due to development we suggest will kill this marsh. Even should a small part of the marsh remain after all the development and filling-in, the animals that either make their homes there or use the area as a breeding site and for foraging will not return due to their activities being hampered by people and traffic. It is well known that turtles trying to cross from Cootes Paradise to this marsh via Olympic Drive are regularly killed on the road. We suggest that there will be an increase in roadkill (of turtles and mammals) once this area undergoes proposed development.

The Region has requested a study of the "Lake Jo-Jo" area from the Hamilton Region Conversation Authority with the aim of creating a wildlife sanctuary there. Upon speaking with Bruce Duncan of the HRCA we were informed that he has also included in the requested study, a study of this smaller marsh. In his report to the Region on this area he has suggested that this marsh is also a viable wildlife area and deserving of protection. This being the case surely the Region would agree with the following points:

- 1) the filling in must be stopped and existing fill removed
- 2) the marsh should be cleaned up of debris
- 3) the banks of the marsh should be reclaimed and re-planted with vegetation appropriate to the marsh ecosystem
- 4) any proposed development should be either stopped altogether (which we strongly suggest should be the case) or carried on in such a way that safe access to the marsh for animals is assured (perhaps through tunnels underneath Olympic Drive) and the marsh remains unaffected.
- 5) traffic is should not be allowed to increase in this area.

We respectfully suggest that development that will not be injurious to this delicate wetland ecosystem is impossible. We would like to see this area, the marsh itself along with the site presently slated for development, set aside and given optimum protection as a marsh ecosystem & wildlife sanctuary.

THE DEVELOPER:

We first heard of property near marsh being sold for development in April 1990 from the article, "From the Mayor's Desk", in the Dundas Star Journal. As of February 3, 1991, a phone call to the Regional Department of Economic Development informed us that the property is still in the negotiation stage, although 3 developers are apparently interested in it.

A news article in the Dundas Star Journal on June 6, 1990 regarding a speech you gave to the Hamilton & District Chamber of Commerce's Dundas Division quoted you as stating the following regarding this property:

- that a deal to sell 12 acres to a local developer whom you wouldn't name could be "inked" (finalized?) this month (June).
- while stating that the town needs industrial development you also stated that there is room for 1500 more housing units.

As previously noted, according the Regional Dept. of Economic Development the sale of this property has not been finalized as of February. We assume, then, that this deal has not been "inked".

In regard to the fact that there is room in Dundas for 1500 more housing units when Dundas needs industrial development, why not use this space for industrial or business development? We would also suggest that redeveloping existing industrial properties would be an environmentally superior approach to solving Dundas's industrial development problems than would bringing in more traffic, buildings and people to two environmental sensitive areas like Lake Jo-Jo and the marsh.

TOWN OF DUNDAS AND THE REGION:

While we realize the property in question is Regionally owned, our original letter to the Dundas Town Council was sent with the idea that the Town would make a supportive statement regarding the protection of the marsh before it was sent on to the Region.

Instead Council recommended that our letter be sent to the Planning and Development Committee who, because the Town planner had resigned, sent the letter to the Region for comments from a Regional Planner.

We heard nothing from the Planning and Development Committee until December when we were informed in a letter from them that "it was determined that (our) concerns were a Regional matter". Our letter was brought up at a Planning and Development meeting in November and again at a Town Council meeting in December. Although a letter from the Town in July told us that we would be informed about upcoming meetings regarding our letter, we were not informed of either date. Although copies of the agendas for all council and committee meetings are made available to the public, we could not find time to seek these out due to both our work loads from September to January. Therefore, neither I nor my husband, made a deputation at either of the Planning and Development or Council meetings regarding our request that the Town make a supportive statement about the marsh before the matter went to the Region.

R.J. Wynnott, Regional Chairman
Re: Dundas Marsh

Page 7

Therefore, apparently our original letter was sent to the Region without a statement of support from the Town of Dundas.

In a Dundas Star Journal article in July 25/90 Mr. Val Terluk stated that the Town could pass a resolution to have the region examine the marsh. Obviously, this suggestion was not taken up by the Town since they passed no such resolution and simply passed our letter on to the region without comment or suggestion.

At a Council meeting in August, Regional and Area Councillor John Prentice informed Council that he and the mayor had met with the developer of this area and requested that he "spare some of the wetlands". We have phoned the Regional Economic Development Dept. several times since April trying to determine who is buying this property. As previously stated, as of February 4, 1991 the property was still up for sale. We would like to know who this developer is that Mr. Prentice and Mr. Addison met with, so that we can approach him/her on our own behalf to discuss our concerns regarding safeguarding the marsh.

We have been trying, apparently in vain, through phone calls to various people in the Region to draw attention to the importance of this marsh. We keep getting handed from one person to another. When we called the Regional Clerk on Feb. 1 to see about our original letter, which was supposed to have been sent on by the Dundas Planning and Development Committee, he had not even heard of it and could not find it.

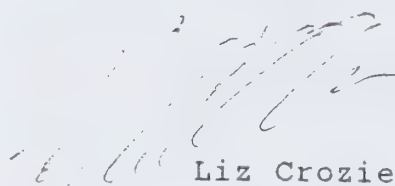
We hope that Region takes the plight of this wetland seriously in its decision-making over the land on which it is situated. At the moment this marsh is a threatened area and we are looking to your government to take responsible action to see that it is protected and preserved. We feel that it would be in the best interests of this marsh, the animals that depend on it, the region of Hamilton-Wentworth and the citizens of Dundas to have the marsh designated for protection in the Region's official plan.

We expect to hear from you in the near future in regard to this crucial matter.



David Crozier-Organ

Respectfully



Liz Crozier-Organ



12B MATILDA ST. NORTH
DUNDAS, ONTARIO
L9H 2Y8

JUNE 17, 1990

TOWN OF DUNDAS
60 MAIN STREET
DUNDAS, ONTARIO

ATTENTION: COUNCILLOR R. WELCH
CHAIRMAN, PLANNING & DEVELOPMENT COMMITTEE

DEAR MR. WELCH:

WE ARE WRITING IN REGARD TO THE POSSIBLE ERADICATION OF A MARSH THAT EXISTS ON REGION-OWNED LAND SITUATED OFF OF KING ST. EAST NEAR OLYMPIC DRIVE IN DUNDAS AND NOW BORDERED BY THE RECENTLY CREATED BASEBALL PLAYING FIELD.

AS FAR AS WE KNOW THIS MARSH WAS IN EXISTENCE AT THE TIME DUNDAS WAS ORIGINALLY SETTLED AND HAS BOTH HISTORICAL AND ENVIRONMENTAL SIGNIFICANCE. IT IS MORE THAN LIKELY THAT IT WAS ONCE PART OF THE COOTES PARADISE MARSH. HOWEVER, DUE TO DEVELOPMENT, IT HAS BEEN CUT OFF FROM COOTES PARADISE AND BARELY SURVIVES AS AN UNIQUE ECO-SYSTEM IN ITS OWN RIGHT. AT PRESENT, FILL IS BEING PLOUGHED INTO THE EDGE OF THE MARSH. THERE IS A REAL THREAT THAT THE MARSH WILL BE BURIED IF THIS ACTIVITY DOES NOT CEASE. WE CAN SEE NO REASON WHY THIS FILL CAN NOT BE DUMPED ELSEWHERE IN A LESS ENVIRONMENTALLY SENSITIVE AND HISTORICALLY SIGNIFICANT AREA. AS WELL, THIS IS NOT CLEAN FILL; IT CONTAINS CONSTRUCTION RUBBLE, TIRES, CARPETING, MATTRESSES AND PIPES.

BESIDES THE THREAT OF BEING BURIED THE MARSH HAS BECOME CLUTTERED WITH DEBRIS DUE TO PAST, AND APPARENTLY ONGOING, ILLEGAL DUMPING. TIRES, BITS OF RUSTING METAL, PIPES AND EVEN SUCH ITEMS AS SINKS, STOVES AND ASBESTOS SHEETS HAVE BEEN OBSERVED WITHIN THE MARSH.

OUR CONCERN OVER THE FUTURE SURVIVAL OF THIS MARSH LED US TO CONTACT CHRISTINE BISHOP OF THE HAMILTON NATURALISTS' CLUB WHO RECENTLY COMPLETED A BIOLOGICAL SURVEY OF THE MARSH. THE RESULTS OF THIS SURVEY, AND HER RECOMMENDATIONS, ARE ENCLOSED. WE WOULD LIKE TO ADD TO THE NATURALISTS' CLUB'S SURVEY A LIST OF SPECIES OF ANIMALS AND PLANTS THAT WE HAVE OBSERVED IN THE MARSH OVER THE LAST FIVE YEARS:

BIRDS: BANK SWALLOWS, GOLDFINCHES, ROBINS, MOURNING DOVES, FLICKERS, KESTRELS, KINGFISHERS, SANDPIPERS, GREAT BLUE HERONS, GREEN HERONS, MALLARD DUCKS, BLUE-WING TEAL DUCKS, MUSCOVY DUCKS

MAMMALS: RED FOXES (2), SQUIRRELS, DEER, RABBITS, MARMOTS (WOODCHUCKS)

REPTILES: GARTER SNAKES

OTHER: LAND SNAILS (IN ABUNDANCE)

PLANTS: SWAMP MILKWEED, SPOTTED JOE-PYE WEED, NODDING BUR MARIGOLD, ARROWHEAD, WILLOW (INCLUDING PUSSY WILLOW) AND ALDER TREES

AS YOU CAN SEE FROM BOTH THESE SURVEYS THIS AREA IS VERY IMPORTANT GIVEN THE AMOUNT AND DIVERSITY OF LIFE IT SUPPORTS. IT HAS SERVED, UP TO THIS TIME, A QUIET CORNER WHICH PROVIDES NATIVE SPECIES OF ANIMALS WITH A SECLUDED NURTURING ENVIRONMENT. AS SUCH, IT PROVIDES A SECOND, ALTHOUGH SMALLER, SANCTUARY IN CONJUNCTION WITH COOTES PARADISE. GIVEN THAT COOTES PARADISE HAS DETERIORATED FROM ITS ORIGINAL STATE AS A MARSH IN THE TRUE MEANING OF THE WORD, IT PROVIDES A MORE COMPLETE AND NATURAL HABITAT FOR THESE ANIMALS.

ALSO ATTACHED IS A LETTER FROM CHRISTINE BISHOP OUTLINING HER ARGUMENT FOR THE PRESERVATION AND ENHANCEMENT OF THIS MARSH. WE FULLY AGREE WITH MS. BISHOP'S POSITION. IT WOULD BE A TRAGEDY, AT A TIME WHEN WETLANDS AND GREEN SPACES ARE QUICKLY DISAPPEARING, WHEN ANIMALS ARE SUFFERING FROM A LACK OF NATURAL HABITAT, IF THIS MARSH IS BURIED UNDER A MASS OF TIRES AND RUBBLE. THE QUALITY OF LIFE FOR THE PRESENT AND FUTURE CITIZENS OF DUNDAS WOULD ALSO SUFFER, WE FEEL, IF THIS MARSH IS DESTROYED.

IN REGARD TO THE PRESERVATION OF THE MARSH WE SUGGEST THAT YOUR COMMITTEE LOOK TO THE PROVINCE'S WETLAND CLASSIFICATION PROJECT. SECTION 3 OF THE PROVINCIAL PLANNING ACT IS THE AUTHORITY UNDER WHICH THE PROVINCE'S WETLAND POLICY STATEMENT HAS BEEN ISSUED. UNDER THE ACT, MUNICIPALITIES MUST HAVE REGARD TO PROVINCIAL POLICY STATEMENTS AND, IN THE CASE OF THE WETLAND POLICY STATEMENT, THIS ENSURES THAT WETLAND CONSERVATION BECOMES PART OF THE PLANNING PROCESS OF MUNICIPALITIES. UNDER THIS POLICY STATEMENT CLASS IV-VII WETLANDS ARE THOSE CONSIDERED TO BE OF LOCAL SIGNIFICANCE. THE BEST USE OF THE WETLANDS IS AN ISSUE TO BE DECIDED BY MUNICIPAL COUNCIL AS PART OF LOCAL PLANNING PROCESS. IT IS POSSIBLE THAT THIS PARTICULAR MARSH MIGHT RECEIVE A CLASS III DESIGNATION DUE TO ITS UNIQUE NATURE AND ITS HISTORIC CONNECTION TO THE COOTES PARADISE ECO-SYSTEM.

- 3 -

THE MARSH WITH WHICH WE ARE CONCERNED MOST DEFINITELY QUALIFIES WITHIN THE CLASS IV - VII WETLAND CATEGORY AND IS OF LOCAL INTEREST. IT IS POSSIBLE THAT A HIGHER DESIGNATION MIGHT BE POSSIBLE GIVEN ITS HISTORIC CONNECTION AND CLOSE PROXIMITY TO COOTES PARADISE. THIS MARSH PLAYS AN IMPORTANT ROLE IN OUR LOCAL ECOLOGY AND, IF PROPERLY HANDLED BY THE TOWN, COULD ENHANCE THE LIVES OF DUNDAS CITIZENS AND FORM A PART OF THE TOWN'S PLANNING FOR TOURIST PROMOTION. WE WOULD LIKE TO HAVE THIS MARSH AREA CLASSED AS A CLASS III OR IV WETLAND AREA AND THE TOWN'S OFFICIAL PLAN CHANGED SO AS TO BLOCK FURTHER DEVELOPMENT OF THE AREA AND PRESERVE THIS MARSH FOR FUTURE GENERATIONS. TOURIST DOLLARS AND RECREATIONAL BENEFITS CAN SIGNIFICANTLY CHALLENGE THE RATIONALES OF THE MOST ARDENT PROPERTY DEVELOPMENT SUPPORTER. THE TOWN HAS ONLY LIMITED RESOURCES FOR EXPANSION BUT HAS UNLIMITED TOURIST POTENTIAL IF CAREFULLY PLANNED. WE STRONGLY SUPPORT THE RECOMMENDATIONS OF CHRISTINE BISHOP FOR THIS MARSH AREA. WE TRUST YOU WILL TAKE THE NECESSARY STEPS WITHOUT DELAY.

PLEASE LET US KNOW THE DATE UPON WHICH THE PLANNING AND DEVELOPMENT COMMITTEE WILL CONSIDER AND DISCUSS OUR LETTER. THANK YOU.

YOURS TRULY,

DAVID CROZIER-ORGAN

LIZ CROZIER-ORGAN

ENCL. CHRISTINE BISHOP'S "SURVEY AND RECOMMENDATIONS".



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

This wetland site could be a valuable asset to the Dundas community. In its present state, the pond is being impacted by garbage such as tires and concrete blocks which litter its shoreline, and fill from construction activities. Despite these impacts, it remains a very productive wetland as evidenced by the above list of biotic contents noted at the site in just one visit. This does not include any migratory bird activity which is likely to occur there in the spring and fall. These types of small wetlands are an island of green and an attractive place for migrant birds among our many urban areas in the Golden Horseshoe. The presence of emergent plants, i.e. sedge and rush communities, cattail sp., is very special because this type of vegetation is lacking in most of the shoreline wetlands of Lake Ontario and Hamilton Harbour due to the destructive activities of carp, and sediment erosion. In fact, these types of plants will be welcome and encouraged in any future wetland rehabilitation efforts in Cootes Paradise.

This wetland must not only be preserved, but has great potential as an educational tool for the public and students in elementary and high school. It is easily accessible, and contains a significant biological community within minutes of Dundas homes. I believe it is an ideal site for the city or region to provide a couple of nature interpretation signs, to enhance the shoreline (!), and perhaps, place a small viewing platform near the baseball field. Our club would be very interested in participating in a co-operative effort with the region or city in this regard. I believe that the site can and will attract people to it but if it is ignored, and eroded inch by inch by fill it will be a sad loss to Dundas. Few towns still possess these types of wetlands so close to their community.

Yours sincerely,

Christine Bishop
Conservation Committee

Hamilton Naturalists' Club is a non-profit organization dedicated to the study, appreciation, and conservation of our wild plants and animals.
All work is freely done by Directors, Officers and Members



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

June 10 1990

Re: Region-owned lands near the Olympic Drive waste transfer site

The following is list of breeding birds, amphibians and reptiles mammals and botanical species found on June 9 1990 in the wetlands located at the above mentioned site:

Breeding Birds

Number

Sora	1
Willow Flycatcher	3
Swamp Sparrow	1
Common Yellowthroat	1
Yellow Warbler	4
Red-winged Blackbird	6
Black-billed Cuckoo	1
Northern Oriole	1
Warbling Vireo	2
Song Sparrow	3
Eastern Kingbird	3
Indigo Bunting	1
Killdeer	3
Canada Goose	-several families

Reptiles

Painted Turtle	6
Snapping Turtle	1 nesting

Amphibians

Green Frog	2
Leopard Frog	2



Postal Station E, Box 5182
HAMILTON, ONTARIO L8S 4L3

Hamiltons

Ramson	1
Hushnet	1

Aquatic Plants:

Scirpus sp. (Bash sp.) community
Juncus sp. (Sedge sp.) community
Typha latifolia (Cattail sp.)
Typha angustifolia (Cattail sp.)





CORPORATION OF THE TOWN OF DUNDAS

OFFICE OF THE CLERK
SUSAN L. STEELE, TOWN CLERK

60 MAIN STREET, DUNDAS, ONTARIO L9H 2P8 (416) 628-6327, Ext. 201
MAILING ADDRESS: P.O. BOX 8584, DUNDAS, ONTARIO L9H 5E7

July 17, 1990

Mr. David Crozier-Organ,
Mrs. Liz Crozier-Organ,
12B Matilda Street North,
Dundas, Ontario.
L9H 2Y8

Re: Possible eradication of Marsh -
King Street and Olympic Drive
Our File No. 10.58.01

Dear Mr. and Mrs. Crozier-Organ:

Please be advised that your letter dated July 5, 1990 regarding the above matter was presented to the Town Council on July 16, 1990 at which time it was referred to the Planning and Development Committee.

When this matter is to be considered by the Committee you will be advised of the meeting date.

Yours truly,

SLS:jr


(Ms.) Susan L. Steele, A.M.C.T.,
Town Clerk.

cc: J. Keating, Planning Co-Ordinator



CORPORATION OF THE TOWN OF DUNDAS

OFFICE OF THE CLERK
SUSAN L. STEELE, TOWN CLERK

60 MAIN STREET, DUNDAS, ONTARIO L9H 2P8 (416) 628-6327, Ext. 201
MAILING ADDRESS: P.O. BOX 8584, DUNDAS, ONTARIO L9H 5E7

December 11, 1990

Mrs. Liz Crozier-Organ,
12B Matilda Street North,
Dundas, Ontario.
L9H 2Y8

Re: Possible eradication of Marsh -
King Street and Olympic Drive
Our File No. 10.58.01

Dear Mrs. Crozier-Organ:

Please be advised that your letter dated July 5th which was referred to the Planning and Development Committee was considered at the November 21st meeting. At that time it was determined that your concerns were a Regional matter.

The Town Council endorsed this at its meeting on December 3, 1990.

The pictures you submitted with your letter are being returned at this time and a copy of your letter has been forwarded to the Regional Municipality of Hamilton-Wentworth as information.

I would suggest that if you wish to address a Committee of the Regional Council you contact Mr. R. Prowse, Regional Clerk, directly.

Yours truly,

(Ms.) Susan L. Steele, A.M.C.T.
Town Clerk

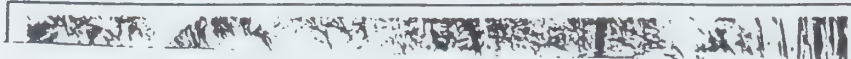
SLS:jr

Attachment

cc: Mr. R. Prowse, Regional Clerk

Local wetlands endangered Dundas naturalists say

DUNDAS 3-11-90



By Christine Bowman
Staff Writer

Two local naturalists are fighting to stop further destruction of a marsh they say has environmental and historical significance.

Liz and David Crozier-Organ have asked the town to help stop the filling in of the marsh — located on region-owned land near Volunteer Field on King Street — when an adjacent light-industrial park is built.

"I come out here and I see mattresses, tires and carpeting, and I'm trying to find out who's responsible for this. What we want is some sort of statement by the town that they're behind us and will support a cleanup effort," said Ms. Crozier-Organ during a visit to the site last week.

Ms. Crozier-Organ said she and her husband have hiked the marsh for years, but on recent trips have noticed the shoreline is receding while the amount of concrete pipes, plastic, tires and even sinks illegally dumped on the site is increasing.

Christine Bishop, a biologist and member of the Hamilton Naturalists Club, recently conducted a survey of the marsh and found 14 breeding birds, two kinds of reptiles, two species of amphibians, two types of mammals and four varieties of aquatic plants.

The marsh may have once been part of Cootes Paradise.

See MARCH/page 4

Heed naturalists' concern for marsh

Re: Local Wetlands Endangered, Dundas Naturalists Say (Star Journal, July 25).

The naturalists' spirit and dedication to protecting and preserving a marsh in Dundas is to be applauded.

The town must take their concerns seriously. It is very

easy to dismiss them as extremists. What these people realize, which many of us do not, is that the earth is an ecosystem where everything is connected.

When we harm natural areas with a diversity of wildlife, we eventually harm ourselves.

The time is long overdue for us to tread lightly on nature and put thought into how and where we "develop."

Rashne Baetz, P. Eng.
Dundas

(77) 1111

PAGE 4 Dundas Star Journal, Wednesday, July 25, 1990

Marsh, industry's need must be balanced: mayor

Continued from Page 1

and still serves as a vital corridor for birds and mammals, Ms. Bishop said. She added it has great educational value for local schools, which could study it as part of their science and biology courses.

Vital corridor

Ms. Bishop and Ms. Crozier-Organ said they would like interpretive nature signs around the marsh to aid students or nature buffs in studying the area. They would also like permission to clean up the garbage and put clean fill around the marsh.

Ms. Bishop said it's unusual for a wetland of this type to be located so close to a community. It's also valuable because it contains sedge and cattail bul-

rushes, vegetation which doesn't flourish in many Ontario wetlands because the presence of carp fish causes sediment erosion and uproots the plants, she said.

"It's a wetland worth saving because there's such a diversity of wildlife there," she said. "Dundas has the opportunity to maintain a wetland, and a green space in their town. It's a good thing, it has esthetic as well as hydrological benefits to the town."

Ms. Bishop said the marsh is important not only because it attracts unusual species and will keep pesky species of insects in the area, but also because it may help absorb some of the runoff from nearby Volunteer Field.

But Mayor John Addison said before the town makes a decision, it must first determine whether the marsh is worth saving.

Professional opinion

"I want to get a professional opinion as to what is really in there," he said. "(Ms. Bishop's) a biologist with a very definite slant, but I want to know, is it unique or is it something that occurs everywhere?"

"I would like the whole thing to be quantified."

He added if an expert from the Royal Botanical Gardens finds the marsh supports rare wildlife, the town would fight to save it.

"We would approach the developer and say, 'You're not going to be able to develop the whole property. You must keep some of that marsh,'" he said.

Mr. Addison added while he understands the naturalists' concerns, they must be balanced with the town's need to attract new industry.

Regional Councillor John Prentice, who's visited the marsh, said he'd rather spend money on improving Cootes Paradise.

"There's nothing in that little marsh that's rare. It's a very attractive little pond because there's no carp in it," said Mr.

"I come out here and I see mattresses, tires and carpeting and I'm trying to find out who's responsible for this. What we want is some sort of statement by the town that they're behind us and will support a cleanup effort."

— Liz Crozier-Organ

Prentice, who sits on Regional Chairman Reg Whynott's environmental advisory committee.

He said he would try to convince the developer to keep it as a green space, but added that might be difficult because the region spent a lot of money to attract industry to locate there.

Val Terluk, the region's manager of solid wastes, also said preservation interests need to be balanced against development.

"I agree with Mr. Addison that you don't want to be an extremist in these situations. You can't just come in and say the woolly caterpillar is going to suffer, so we can't build here even though the economy of the town may suffer greatly," said Mr. Terluk, who also sits on the environmental committee.

Balance interests

But Mr. Terluk said if the town is serious about protecting the area, it could pass a resolution to have the region examine the marsh in detail. The analysis could begin as early as September, he added.

Ms. Crozier-Organ said she understands the town's dilemma and is not opposed to careful, light development. But she added she would still like the town to commit to saving the marsh before it's too late.

"I'm certainly not against Volunteer Field. I think it's a tremendous thing. And the region has said the development will be handled very carefully," she said.

"But unless the town and region take some stance and say it's an important area, the developers won't think it's an important area, and we'll lose it."

Grafton lot development should begin this

FROM THE MAYOR'S DESK JOHN ADDISON

Now that we are getting closer to summer, the planning and budgeting which has gone on during the winter months will be translated into both hard and soft services.

The Dundas tax increase of 4.29 per cent is once again the lowest in the region; however, council has not sacrificed or delayed any capital projects and will, in fact, be developing fur-

ther many existing programs. We have never tried to do everything at once, but we do look beyond the immediate to better anticipate the town's needs up to five years in the future.

With careful planning, and without major surprises from the province, there is no reason why this and future councils cannot continue to meet the demands of the community without occasional tax shocks.

As well, we are optimistic that development will begin on the Grafton lot, this summer.

Plans have been finalized and will be presented to the planning committee this month. If all goes according to what we've seen so far, the final result should prove to be a substantial addition to the downtown — and a complement to our current streetscape.

With the advisory committee's work all but finished, the task of ensuring that what we've seen on paper actually gets built re-

mains with council.

I will speak more about the role of the advisory committee at a later date, since I want its contribution to be properly understood and recognized by the people of Dundas.

One other area that should see some development in the not-too-distant future is a parcel of vacant land in the vicinity of King Street and Olympic Drive.

Approximately three years ago, the region identified lands it owned which could be considered surplus.

After deducting what it wanted for regional needs, it was concluded that there was industrial potential for about twelve acres (4.8 hectares).

A buyer who would like to build immediately has now been identified, so if negotiations are successful some positive action should commence within the year.

Finally, I would be remiss if I did not congratulate those who have worked so hard to mak-

see often with a Peace House

Dundas Star Journal, Wednesday, June 6, 1990 PAGE 3

Region close to deal on Olympic development

Confidential negotiations are under way for an 7,650-square-metre (85,000-square-foot) office and commercial development on region-owned lands near the Olympic Drive waste transfer station.

During a visit to Dundas last week, Regional Chairman Reg Whynott said a deal to sell 4.8 hectares (12 acres) of land to a local developer, whom he wouldn't name, could be inked this month.

"Our region has really been working on this one because the council of Dundas would like to see something happen there," he told about 25 members of the Hamilton and District Chamber of Commerce's Dundas division who gathered at the Dundas Valley Golf and Curling Club.

Mr. Whynott, invited to speak on economic prospects in Dundas, said the development would help improve the town's commercial assessment tax base, which has been slowly dwindling as Dundas increasingly becomes a residential community.

The town had initially hoped the site would be developed as an industrial park, but a report last year by the region's economic development department concluded the site's size and adjoining land uses limited its potential. As an alternate strategy, the region has been trying to attract area businesses to the site.

Opportunities

The site is one of the few vacant commercial properties

in Dundas, and as a result, most future development will come in the form of redeveloping existing properties, like Wayne Full International Investment Inc.'s plans to transform the former Canada Machine Corporation site on Hatt Street into a \$20-million commercial-residential complex, Mr. Whynott said.

"We believe that the economic future in Dundas will rest around the commercial and retail activity sector, servicing your local residents and capitalizing on your above average income of Dundas residents," he said.

"Potential for growth is slow but steady, and most of it will be controlled by your local council, with the region coming in to provide the services as (they) are required."

While Dundas continues to be a preferred residential area in the region, Mr. Whynott said growth prospects are also limited by the lack of available land. Although there is room for about 1,500 more housing units — about 15 per cent of Dundas' present housing stock — the town lags behind Stoney Creek, Ancaster, Glanbrook and Flamborough, he said.

Between 1988 and 1989, the town's population rose from 20,640 to 21,230, while the number of properties on the tax rolls grew from 6,440 to 6,691 — an increase of 4 per cent, he said. Overall, the assessment grew by about 1.03 per cent.

"These are very modest figures, but I want you to know that it's better than being the other way," he said.

Mayor John Addison, in an address prior to Mr. Whynott's speech, said that while Dundas has little developable industrial land, the proposed commercial-residential development on the Grafton lot and the beautification project in the downtown area should bring positive changes.

"We're very optimistic about our own future here, especially our commercial (potential) and our downtown," he said.

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Canada Insurance Deposit Corporation

L. Crozier-Organ
12B Matilda St. N.
Dundas, Ontario
L9H 2Y8

April 22, 1991

R. Prowse, Regional Clerk
Regional Municipality of Hamilton-Wentworth
Box 910
Hamilton, Ontario
L3N 3V9

Dear Mr. Prowse:

Further to our telephone conversation of February 1, 1991, I am enclosing a copy of a file copy of the letter my husband and I wrote to the Town of Dundas in July regarding a marsh which is located on regionally-owned property on the corner of King Street East and Olympic Drive in Dundas.

I am also enclosing a copy of the survey and letter from Christine Bishop of the Hamilton Naturalists Club, a copy of a map showing the location of the marsh and copies of letters received from the Town of Dundas regarding this matter.

Yours truly,

Liz Crozier-Organ

cc -- Regional Chairman ✓

L. Crozier-Organ
12B Matilda St. N.
Dundas, Ontario
L9H 2Y8

April 22, 1991

Mr. G. McCallum, Main Supervisor
Dept. of Sewer and Water Maintenance
Regional Municipality of Hamilton Wentworth
489 Victoria Ave. N.
Hamilton, Ontario

Dear Mr. McCallum:

This is to confirm our telephone conversation of Feb. 3/91 in which you informed me that fill dumped into the marsh located on regionally-owned property on the corner of King Street East and Olympic Drive in Dundas has ceased as of December, 1990. While I am pleased to hear of this, I am concerned that this activity of dumping fill will continue this spring once excavation work continues.

Therefore, I am asking that you write me confirming that fill is no longer being dumped into this area and that this stoppage of fill is to be permanent and not temporary.

Yours truly, -

Liz Crozier-Organ

cc: Regional Chairman ✓

3h

REGION OF HAMILTON-WENTWORTH
- INFORMATION -

DATE: 1991 May 16
E307-01 P. K. Dunn

REPORT TO: Chairman and Members
Chairman's Advisory Committee on Environmental Issues

FROM: L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

SUBJECT:

Hotz and Sons Ltd. - Drums & Wipers Division
166 Ferguson Avenue North

L. D. Turvey

L. D. Turvey

L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

N/A.

Cont'd.....

Cont'd.....
- page 2 -
May 16, 1991

Cont'd.....

Hotz and Sons Ltd. - Drums & Wipers Division
166 Ferguson Avenue North

BACKGROUND:

Concurrent with questions raised recently at this committee regarding alleged illegal barrel washing operations, the Hotz site was inspected April 9, 1991, in keeping with the MISA sewer use control program.

Councillor Geraldine Copps and Mr. William Pedder were approached for further specific information with regard to this site and a routine assessment of the company's discharges to sewer was undertaken.

At a pre-inspection discussion with L. Hotz and H. Lim, Vice-President of Hotz - Environmental Division, they indicated that a Certificate of Approval was not required for this operation since no drum washing or refurbishing operations were being carried out.

Previously a coal company, this has for some time been an empty plastic and metal barrel recycling operation. Drums are received and stored, with subsequent installation of lids and rings and stacked for re-sale. Damaged drums are sold for scrap. As part of this inspection a water mass balance was undertaken which did not indicate that any significant water based operation is taking place at this site. Mr. Lim informed us that greater than 95% of drums received had contained fruit juices from food operations.

Sanitary waste volumes for the six Hotz employees was calculated to be approximately 1/2 cubic meters/daily. The average daily water consumption calculated on water billing figures for the period of May/1988 to the present was 1.13 cubic meters/day. The range of average daily usage ranges from (0.60 - 1.78) cubic meters/day for this period.

Storm water management for this site will be further assessed by the Sewer Use Control Section.

PKD:eb

c.c. R. Whynott, Regional Chairman
c.c. M. Carson, C. A. O.

URBAN MUNICIPAL

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A35E
1991

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2nd Fl., 55 York Blvd.
Hamilton, Ontario
L8R 3K1

env

**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, September 12, 1991

TIME: 8:30 o'clock a.m.

PLACE: Committee Room, 15th Floor
Regional Offices

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act
- b) Minutes of the Chairman's Advisory Committee on Environmental Issues
Committee Meeting - July 11, 1991

2. BUSINESS ITEMS

2.1 Marketing Blue Bags for Recycling in Hamilton-Wentworth

- a) That Regional Council endorse the sale of translucent blue plastic bags throughout the Region, for use by Regional residents who choose to participate in the Region's curbside recycling programme using blue bags;
- b) That, in recognition of the responsible approach taken, and specifically the effort and time devoted to consultation with the Region before marketing a recycling-related product, First Brands (Canada) Corporation be commended for demonstrating their sensitivity to local recycling programmes.

2.2 Composting Facilities, Slide Presentation

Report from Councillor B. Hinkley.

3. For the Information of the Committee

That the following items be received:

- a) Correspondence from Mr. Don McLean, Vice-Chairman, Natural Areas Subcommittee, respecting ESA Sensitivity Study to the following individuals: B. Vanderbrug - Royal Botanical Gardens, J. Vogt - Ministry of the Environment, D. Turvey - Commissioner of Transportation/Environmental Services, J. Thoms - Commissioner of Planning, P. Rice - Royal Botanical Gardens
- b) Correspondence dated August 22, 1991, from W. R. Pearce, M.C.I.P., Head - Strategic Planning Division, respecting Assessment of Marsh Located Beside Volunteer Field, Dundas
- c) Information from Air & Waste Management Association respecting a conference "Toxic Air Pollutants from Mobile Sources", to be held at The Westin Hotel - Renaissance Center, Detroit, Michigan, October 15-18, 1991
- d) Correspondence dated August 14, 1991, from Andreas Laqua, Laqua Dental Equipment Ltd., respecting pollution in the dental industry
- e) News Clipping from the East Hamilton Journal dated Wednesday, July 24, 1991, from Councillor B. Hinkley, re: "Is Anyone Home at the Hamilton Office of the Ministry of the Environment?"

4. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution

**Chairman's Advisory Committee
On Environmental Issues**

Agenda

September 12, 1991

August 9, 1990

Spraying of Pesticides
Item 2.1

Sub-Committee on
Natural Areas

September 13, 1990

Correspondence - Amstel
Brewery - Recyclable
Beer Bottles

Paul Muldoon

June 13, 1991

Underground storage tanks

Tabled pending staff
investigation on
previous Council
directives on
underground storage
tanks.

July 11, 1991

Regional Contracts

Staff to report back
to Committee on
Regional Contracts
issued when
demolishing a
structure, and
addressing the issue
of how materials are
disposed of and how
this is enforced and
regulated.

6. ADJOURNMENT

16)

MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE ON ENVIRONMENTAL ISSUES

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m., on Thursday, July 11, 1991 in the Committee Room, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillors B. Hinkley, G. Copps
R. Baetz, P. Muldoon, G. Birchall,
C. Katz, B. Vanderbrug,

Absent with Regrets: Councillor H. Merling
Prof. K. Murphy, B. Pedder
B. Thompson - Another Commitment

Also Present: D. McLean - Committee Member Alternate,
R. Stewart - M.O.E., B. Pearce, V. Terluk, G. Ostifi,
J. Halliday, N. Ragetlie, K. Pidsadny

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act (None)
- b) Minutes of the Chairman's Advisory Committee on Environmental Issues Committee Meeting - June 13, 1991 (Copps/Muldoon) be received and adopted as presented. **CARRIED**

2. BUSINESS ITEMS

2.1 Appointed Alternate for Chairman's Advisory Committee on Environmental Issues

(Hinkley/Copps)

That Mr. John Coates, Assistant General Manager (H.R.C.A.) Hamilton Region Conservation Authority, be appointed as the alternate voting member for Mr. B. W. Vanderbrug, as outlined in the Terms of Reference for the Chairman's Advisory Committee on Environmental Issues. **CARRIED**

Note: Council approval for voting alternates of the Chairman's Advisory Committee on Environmental Issues Council Minutes, May 21, 1991, ESC Report 9-91, Item 22.

2.2 Volunteer Field Marsh Area, Town of Dundas (PLA 91-041)

(Hinkley/Baetz)

- a) That the Firm of Geomatics International be retained at an upset fee of \$5,000 to undertake a detailed assessment of the Volunteer Field Marsh area, Town of Dundas, to make the following determinations:
- The significance of plant and animal communities
 - Water quality of the Marsh and the implications of its location within a possible land fill site
 - Its relationship and significance to the Cootes Paradise Area as a Class 1 wetland
 - Worthiness of protecting/preserving the Marsh area
 - If protection is deemed advisable, identification of compatible land uses that could take place near or adjacent to the Marsh, with identification of mitigation actions if required
- b) That the study be coordinated jointly by the Regional Planning, Economic Development, and Engineering Departments;
- c) That costs of the study be charged to Economic Development account 815102B-59004;
- d) That the above recommendations be forwarded to the Engineering Services, and Economic Development and Planning Committees.

CARRIED

3. For the Information of the Committee

(Vanderbrug/Katz)

That the following item be received:

Correspondence dated June 18, 1991, from the Regional Chairman, forwarded to Minister of the Environment, respecting Resolution re: Contaminated Sites, unanimously endorsed by Regional Council, June 4, 1991

CARRIED

NEW BUSINESS

1. (Copps/Hinkley)
That the Chairman's Advisory Committee on Environmental Issues review the Terms of Reference for the proposed project regarding the Terraqua Report - Former Landfill Sites in the Regional Municipality of Hamilton-Wentworth. **CARRIED**
2. (Hinkley/Copps)
That staff report back to Committee on Regional Contracts issued when demolishing a structure, and addressing the issue of how materials are disposed of and how this is enforced and regulated. **CARRIED**
3. Councillor B. Hinkley advised the Committee that he will be one of the representatives touring Composting Facilities in Europe. The 5-day itinerary appears to be very involved. There was a discussion on the Composting Council of Canada and their choice of composting facilities for this tour.
4. Staff advised members of the Public Opening of the Waste Facility, July 27, 1991 (Hotz Facility on Lottridge St., Hamilton).
5. (Hinkley/Baetz)
That the Terms of Reference for the Thermal Kinetic System review be presented to the Engineering Services Committee and referred back to the Chairman's Advisory Committee on Environmental Issues for review and comment. **CARRIED**

4. ADJOURNMENT

On motion (Muldoon/Vanderbrug) the meeting adjourned at 10:10 a.m.

CARRIED

Chairman

Secretary



2.1

REGION OF HAMILTON-WENTWORTH

-RECOMMENDATION-

DATE: 1991 July 31
E309-20B (P. Jensen)

REPORT TO: Mr. Chairman and Members
Chairman's Advisory Committee on Environmental Issues

FROM: L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

SUBJECT:

Marketing Blue Bags for Recycling in Hamilton-Wentworth

RECOMMENDATION:

- a) That Regional Council endorse the sale of translucent blue plastic bags throughout the Region, for use by Regional residents who choose to participate in the Region's curbside recycling program using blue bags; and
- b) That, in recognition of the responsible approach taken, and specifically the effort and time devoted to consultation with the Region before marketing a recycling-related product, First Brands (Canada) Corporation be commended for demonstrating their sensitivity to local recycling programs.

[Signature]
L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

N/A

BACKGROUND:

The attached correspondence and recommendation was directed to the Commissioner of Transportation/Environmental Services by the Chairman of the Waste Management

Cont'd

-page 2-
July 31, 1991

Marketing Blue Bags for Recycling in Hamilton-Wentworth

BACKGROUND: (Cont'd)

Coordinating Committee (WMCC), for consideration by the Chairman's Committee on Environmental Issues and, subsequently, the Engineering Services Committee. The WMCC is a staff level committee that meets monthly to discuss from an operational perspective various waste management initiatives within the Region.

PJ/pj
Attach

cc: R.J. Whynott, Regional Chairman
cc: M. Carson, Chief Administrative Officer

WASTE MANAGEMENT COORDINATING COMMITTEE

for Hamilton-Wentworth

E309-20B

P. Jensen

July 31, 1991

Department of Environmental Services
Regional Municipality of Hamilton-Wentworth
71 Main Street West
Hamilton, Ontario
L8N 3T4

Attention: L. D. Turvey, P. Eng.
Commissioner of Transportation/
Environmental Services

Marketing Blue Bags for Recycling in Hamilton-Wentworth

Dear Sir:

In July of 1990, First Brands (Canada) Corporation, the makers of Glad garbage bags, approached the Waste Management Coordinating Committee (WMCC) of the Region of Hamilton-Wentworth to discuss the intention of First Brands to sell to regional residents translucent, blue plastic bags, or "blue bags", to be used to place recyclables out for collection. At the time, First Brands and the Region's recycling collection contractor, Third Sector, were engaged in a pilot study in which 209 Dundas households were using the see-through blue plastic bags instead of blue boxes. A summary of this study, which was endorsed by the Town of Dundas, is attached.

The WMCC expressed interest in the concept at that time, but indicated that it was not yet the appropriate time to recommend this option to Regional Council due to uncertainty as to which company would be selected as the Region's recycling collector. Third Sector has expressed support for the use of blue bags by indicating their willingness to collect recyclables placed out in this manner. A copy of the WMCC correspondence to First Brands is attached.

Cont'd...

Marketing Blue Bags for Recycling in Hamilton-Wentworth

As discussed with the WMCC, First Brands proposed that the sale of blue bags through the retail sector would complement the blue box program by allowing individuals who prefer to put recyclables at the curb in bags an option to do so. It was felt by the WMCC that the use of a see-through blue plastic bag would serve to identify recyclables at the curb in a manner similar to the blue box, while assuring that collectors will still be able to see what is in the bag. This proposal in no way suggests that the Region be responsible for distributing or dispensing blue plastic bags. The bags provide residents with another option to participate in the recycling program.

In May of 1991, First Brands was invited to confer once again with the WMCC on this issue, as the question of the Region's designated contractor had been settled. The WMCC, which includes representation from the Region, expressed a desire to be consulted with respect to the promotional aspects of marketing blue bags in order to ensure that the bags are used in a way that is consistent with the existing program, such as making sure that First Brands do not mistakenly direct people to mix newspaper with other recyclables.

The response of First Brands was positive, and their representatives have made every effort to consult with the Region, Third Sector, and the WMCC on operational and promotional issues. First Brands have done so voluntarily, and have in no way been obligated to seek approval from the Region or the municipalities to sell their product. First Brands has displayed sensitivity to the local recycling program, and has waited more than a year since the initiation of this proposal on the advice of the WMCC.

As a result of the WMCC's consultation with First Brands, the WMCC respectfully requests that the following resolution be submitted to the Chairman's Committee on Environmental Issues, for subsequent submission to the Engineering Services Committee and Regional Council:

- a) That Regional Council endorse the sale of translucent blue plastic bags throughout the Region, for use by Regional residents who choose to participate in the Region's curbside recycling program using blue bags; and
- b) That, in recognition of the responsible approach taken, and specifically the effort and time devoted to consultation with the Region before marketing a recycling-related product, First Brands (Canada) Corporation be commended for demonstrating their sensitivity to local recycling programs.

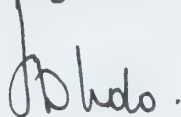
-page 3-
July 31, 1991

Marketing Blue Bags for Recycling in Hamilton-Wentworth

Regional staff receive calls regularly from individuals who would prefer to use blue bags instead of blue boxes, if the option were available. The use of retail purchased blue bags could possibly reduce the current costs associated with the ongoing replacement of blue boxes. The proper and widespread use of blue bags could also reduce collection costs while making program participation more appealing to a segment of the population.

It is expected that First Brands will be in a position to market the blue bags in September of this year. It is also likely that, as in the case of garbage bags, other producers will market similar bags and a competitive market for this product will develop. First Brands, as a result of their consultation and pilot program work with Third Sector, have assured the WMCC that the Glad blue bags used for collections will themselves be recycled into a variety of plastic products.

By way of the suggested resolution, Council is being asked to endorse the "blue bag" concept, and not the First Brands product exclusively. The intent of the second part of the recommendation, however, is to acknowledge the actions of First Brands, the representatives of which waited more than one year in order to gain acceptance for their product and then developed a marketing strategy that would complement, and not conflict with, the Region's recycling program. It is the feeling of the WMCC that this type of responsible corporate behaviour is extremely rare and deserving of public recognition.



D. Lobo, Chairman
Waste Management Coordinating Committee

PJ/pj
attach

WASTE MANAGEMENT
COORDINATING COMMITTEE

for Hamilton-Wentworth

E309-20E
P. Jensen

July 13, 1990

First Brands (Canada) Corporation
305 Milner Avenue
Scarborough, Ontario
M1B 3V4

Att: Mr. Richard Carmichael, Ph.D.
Director of Environmental Affairs

Marketing of Glad - Blue Bags in Hamilton-Wentworth Region

Dear Sir:

On behalf of the Waste Management Coordinating Committee for the Region of Hamilton-Wentworth, I would like to thank both yourself and Mr. William Conning for your attendance at our July 10, 1990 meeting. Your presentation on "blue bag" recycling was very informative, and well received by those present.

With respect to your proposal to market the bags in Hamilton-Wentworth, the consensus of the Committee was to defer a statement of preference until the process of selecting a recycling contractor has been completed. It will be more appropriate for the Committee to declare its position at that time, once the use of the bags has been discussed with the successful contractor.

Cont'd...

Members:

Town of Ancaster
Town of Dundas
Town of Flamborough
Township of Glanbrook

City of Hamilton
City of Stoney Creek
Region of Hamilton-Wentworth
Third Sector Employment Enterprises

-page 2-
July 13, 1990

Marketing of Gald - Blue Bags in Hamilton-Wentworth Region

Cont'd...

The Committee recognizes the prerogative of First Brands to market the bags with or without our blessing, and certainly appreciates your effort to consult with us in this regard. We would ask for an opportunity to provide additional constructive input if and when a decision to retail the blue bags in Hamilton-Wentworth is made.

P. Smeltzer, Chairman
Waste Management Co-ordinating Committee

PJ/md



FIRST
BRANDS
(CANADA)
CORPORATION

305 MILNER AVENUE
SCARBOROUGH, CANADA, M1B 3V4
FAX: (416) 299-7421
TEL: (416) 299-7500

October 16, 1990

Mr. Val Terluk
Manager, Solid Waste Operations
Department of Engineering
Regional Municipality of Hamilton-Wentworth
71 Main Street West
Hamilton, Ontario
L8N 1T4

Dear Mr. Terluk,

This letter is to clarify some confusion that may have been caused by the article on the Dundas Blue-Bag pilot test that appeared in Saturday's Hamilton Spectator.

As we have stated all along, First Brands is committed to ensuring that all Blue-Bag collected from the Dundas Pilot Test are recycled into new or existing products.

During the Dundas Pilot test, the 209 Blue-Bag households set out an average of one bag per week. As each Blue-Bag contains only 29 grams of plastic film, we require large quantities of bags before we have sufficient weight to move to the recycling stage. Therefore, it has taken many months to generate the required number of bags -- over 5000 -- from the Dundas test.

Our intention with this pilot test has always been to generate enough bags from Dundas to recycle them together at one time, so that we could accurately report back to Town of Dundas officials and residents the final "end use" of their Blue-Bags. Now that we have acquired enough bags from Dundas to facilitate the recycling and manufacturing process, we can fulfill our commitment to close the "recycling loop."

In all Blue-Bag pilot tests, we have kept the bags from each community in separate "lots." This practice has helped us to evaluate whether the quality of post-consumer plastic film in the Blue-Bags differs in various programs. In Winnipeg, where the program has progressed past the pilot stage and 25,000 households use Blue-Bags, we were able to generate the quantities of plastic required for a production run much sooner. The handle in the enclosed ice-scraper contains Blue-Bags from Winnipeg.

At no point did we ever imply to the Spectator that Dundas residents "prefer" bags over boxes for recycling. However, you were correct in stating that we are promoting the use of Blue-bags. We will continue to promote the option of bag-based recycling systems to municipalities across Canada, and we stand by the success experienced by a number of Canadian municipalities who have implemented bag-based programs over the past two years.

If you have any questions about our Blue-Bag recycling process, please feel free to contact Bill Conning, Richard Carmichael or myself at any time at (416) 299-7500.

Regards,

Boris Jackman
Vice-President, Home Products
First Brands (Canada) Corporation

Report on Curbside Recycling using the GLAD Blue•Bag System

Executive Summary

Introduction

Between February and June 1990, MacLaren Engineers Inc. conducted an evaluation of the GLAD Blue•Bag system, developed by First Brands (Canada) Corporation, for comparison with the Blue Box method. The studies considered the collection of commingled recyclable materials with the two different systems. The studies were conducted at the Pilot Program Site in Dundas, Ontario, in cooperation with Third Sector Employment Enterprises, the recycling program operator for the Regional Municipality of Hamilton-Wentworth.

Based on the data gained from the studies conducted for this report, we have concluded that the GLAD Blue•Bag system is more efficient than the blue box for collection of commingled recyclable materials.

There is a notion held by some people that the blue box program can not be improved upon. First Brands (Canada) Corporation has taken a responsible and methodological approach to developing what has proven to be an innovative and much improved method for collection of recyclable materials in a quality curbside recycling program.

The data gathered from this study has now been compiled and evaluated. The following is an executive summary of our investigations and conclusions on this matter.

Overview of GLAD Blue•Bag program

After careful consideration of various recycling collection methods, First Brands concluded that a system based on the use of recyclable, plastic bags is better suited to the household collection of commingled, recyclable materials. It was felt that this approach offers numerous advantages over other existing systems to the residents participating in the program, the program operators and to municipalities. Some of these advantages include:

- Convenience (bags are easily accommodated inside the home)

- Sanitation (bags can be opened and closed as required and are leak resistant)
- Handling Convenience (especially important for seniors and the handicapped, bags are easy to carry and require only one trip to the curb)
- Variable volume capacity
- Bags are not subject to loss or damage problems sometimes associated with blue boxes.

First Brands established a pilot program to test their recycling system in a number of Canadian cities, including Dundas, Ontario. In these programs, residents collect recyclables in their home using GLAD Blue•Bags, and then place the bags at curbside on recycling day for pick up. The bags are made of 100 per cent recyclable plastic. The Blue•Bags are see-through to allow collectors to easily identify the contents as recyclable, and are also tinted blue to allow privacy to householders. Similar to most waste collection programs, residents purchase their own bags through normal retail outlets, thus relieving the municipality of the initial capital cost, ongoing administration and replacement costs that box based programs have.

In the Dundas pilot program, residents use a GLAD Blue•Bag for commingled collection of recycled materials and have the option of setting out old newspapers (ONP) tied in bundles, in a plastic grocery bag or in another GLAD Blue•Bag.

Dundas Pilot Test

Through the co-operation of the Town of Dundas and Third Sector Recycling, First Brands arranged to conduct a Pilot Study Program of the GLAD Blue•Bag system in a "typical" low density residential subdivision. The subdivision has approximately 420 single family homes in it and was divided into two groups, with 209 homes in the "Test Cell" (GLAD Blue•Bag) and 211 homes in the "Control Cell" (blue box).

The entire study area was monitored by another independent company for thirteen weeks before the pilot program began to ensure that the households in each of the two cells were relatively equal with respect to recycling and waste disposal practices.

In the study, MacLaren Engineers focused on the three main areas of concern:

1. Time:Motion (T:M) studies of curbside collection in the Test and Control areas.

2. Analysis of the quantity of each type of material collected from the Test and Control areas.
3. Analysis of the glass collected from each area to determine the amount of breakage encountered during collection.

Results from Pilot Test

Time:Motion Results

Time measurements in these surveys were based on the total elapsed time spent on curbside collections in a specific area, beginning at the first pick-up and ending with the last. The data indicates that:

- Residential participation (set-out) rates were consistently higher in the Test (Blue•Bag) area than in the Control (blue box) area.
- The same crew (that had just performed the blue box collection) was able to complete the GLAD Blue•Bag route in less time even though the collection vehicle was required to make more stops in the test area.

Data collected from this study indicate that the GLAD Blue•Bag outperformed the blue box for commingled collections:

- 18% more residences passed per minute
- 46% more residences collected per minute
- 31% more weight (kg) collected per minute
- 24% further distance travelled per minute

Calculation for Recycling Collection Costs:

Based on the data collected we have concluded that the costs for the GLAD Blue•Bag method are:

- 24% less (than the blue box) per 100 kilograms of recyclables collected
- 16% less (than the blue box) per 100 households passed by.

This difference represents a major cost savings to recycling program operators, especially for programs in larger municipalities.

Quantities of ONP and Commingled Containers

The data collected indicates that for every 100 households served the GLAD Blue•bag system has recovered more recyclable materials than the blue box:

- 18.5% more ONP (old newsprint)
- 23.2% more metals
- 1.8% more PET plastic
- 10.5% more glass

These statistics indicate that a well designed bag based recycling system is capable of recovering more materials from the household waste stream than a blue box system can.

Recovery of Glass

During this project, our study team also compared the two systems for glass breakage resulting from collection procedures. Our studies concluded the average loss of glass for each method to be:

- 16.6 % GLAD Blue•Bag
- 22.7 % blue box

We attribute the reduction in glass breakage from the GLAD Blue•Bag to the "cushioning" effect that the bags (all containing commingled materials) have on the glass during route collections.

Summary Conclusions

The recycling "industry" is relatively new and related technology is constantly developing and improving. This is to be expected and should, in fact, be encouraged in order that the most effective solutions be found. The result will be conservation of human and material resources, as well as financial resources.

Based on the data gained from the studies conducted for this report, we have arrived at the following conclusion:

The GLAD Blue•Bag System is More Efficient than the Blue Box for Collection of Commingled Recyclable Materials.

In this study we have been able to compare the performance of the GLAD Blue•Bag system with a well established blue box program. Our evaluations have shown that the GLAD Blue•Bag has outperformed the blue box in every category studied and listed below:

- More weight collected per 100 households passed by (higher "capture" rate in the home);
- Higher participation (set-out) rates for households on the program;
- More efficient use of resources;
- Higher collection efficiency and lower costs (less time required for equipment and personnel to complete route collections);
- Reduced glass breakage during route collection and higher recovery rates of glass for sale to markets (when compared to commingled blue box).

We attribute the higher "capture" rate to the fact that the GLAD Blue•Bag system is better suited to everyday use in the home. The majority of materials (other than newspapers) set aside for disposal through curbside recycling programs originate in the kitchen. The GLAD Blue•Bag is much more easily accommodated in most kitchens because of its size and shape. In addition, the bags are more sanitary than the blue box because they are virtually leak proof and can be opened and closed many times. This helps to reduce offensive odours and any messes caused by leaking residue.

It is likely that the higher participation (set-out) rates for the GLAD Blue•Bag result from at least three main factors:

- The increased volume of materials collected in the home serves to encourage the householder to set the bags out for collection more often;
- The householder does not have to retrieve or clean out the GLAD Blue•Bags;
- The GLAD Blue•Bags can be set out on "bad weather" days because the materials they contain are protected from the elements, whereas the blue box is open to rain, wind and snow, etc.

We have observed that collection efficiency for the GLAD Blue•Bag is higher than the blue box for the following reasons:

- The bag only required one trip to the curb for collection whereas the box has to be returned empty to the spot it was picked from. The safety of the collection staff is also improved because there is no second trip to the curb (through traffic lanes) to return a recycling container;
- Commingled materials and ONP (old newspapers) are placed in separate bags and are easily divided. Materials set out in the blue boxes often have to be sorted from each other before the box can be dumped (eg. people often place ONP in the bottom of the box and loose containers on top);
- ONP placed at the curb in bags remains dry even in inclement weather whereas ONP in blue boxes is exposed to the elements and gets wet. Collecting ONP in bags is also a benefit after it is picked up and placed in an uncovered truck as paper is kept dry and is easier for the program operator to handle;
- Bags are easily tossed over the side of the truck body as it fills up but the blue box has to be lifted much higher and held as it is dumped. This should result in fewer job related injuries (eg. back strain) than the blue box. It also gets more difficult to empty the boxes as the cargo body fills up because there is less space to dump into;
- The blue box has limited capacity. Householders often fill them to overflowing and recyclables are blown out by the wind. The collection staff then has to pick up loose items from the ground and make two trips to the truck because of spillage. With the GLAD Blue•Bag system, the householder just fills a second bag and then ties them shut so that nothing can fall out. This can become more important as recycling programs expand to take in more materials;
- Bags are easier for children, seniors, etc. to carry than the blue box.

The GLAD Blue•Bag system not only affords better efficiency of human and material resources, it also has several other positive effects on the collection procedures. For example:

- Routes are covered in less time therefore less fuel is consumed and the demand on a non-renewable resource is reduced;
- Lower fuel consumption and less truck idle time results in reduced emissions of hydrocarbons and nitrogen oxides into the atmosphere;

- Shorter time on collection routes in neighbourhoods reduces traffic congestion.

In our studies we observed that recovery of glass with the GLAD Blue•bag was superior to the blue box method.

- The reduction of glass breakage results from the fact that bags full of recyclable materials tend to cushion the impact of glass with other materials during collection and unloading procedures;
- On average, almost 78% of all glass collected by the GLAD Blue•Bag was largely intact and about 7% was in pieces large enough to be recovered and colour sorted. This makes sorting and processing much more efficient.

Recommendations

Through our work on this project we have concluded that the GLAD Blue•Bag system is well suited to curbside recycling and that it can actually improve convenience and performance over existing blue box programs.

The GLAD Blue•Bags used in these programs cost approximately \$2.00 for a package of 10 (about \$0.20 each). We have found that most people with the GLAD Blue•Bag system will use less than one bag per week. At this rate, we estimate that the average household will use about 30 - 40 bags a year (cost = \$6.00 - \$8.00), if they set out every other week. This is very reasonable, especially if they take into consideration the added conveniences over the blue box. Also, since the plastic bags are 100% recyclable, the demand on non-renewable resources are not unduly stressed by this use of one-trip bags.

For households already using bags for refuse, the use of GLAD Blue•Bags for recyclables should not result in an increase of total bag purchases over the year.

We recommend that First Brands (Canada) Corporation continue its efforts in the development of the GLAD Blue•Bag recycling system. The company should also continue to work with any municipalities that are interested in using this method by providing technical expertise and advice in areas where they may need assistance.

WASTE MANAGEMENT
COORDINATING COMMITTEE

For Hamilton-Wentworth

E309-20E
P.Jensen

May 31, 1991

RENAISSANCE:
A Resource Recovery Company
101 John Street
Orangeville, Ontario
L9W 2R1

Att: Mr. William D. Conning, P.Eng.
Vice President

Marketing of Glad Blue Bags in Hamilton-Wentworth

Dear Sir:

Thank you for your letter of May 23, 1991. Please be informed that Mr. Pavelka has completed his term as the Chair of the Waste Management Coordinating Committee (WMCC), and that I have assumed the Chair for this term. I am also very pleased to indicate that the first draft of this letter was prepared before receipt of your correspondence, suggesting that your timing is, indeed, very appropriate.

In July of 1990, when both yourself and Mr. Richard Carmichael presented the concept of recycling with blue bags to the WMCC, the Region was engaged in the process of selecting a recycling contractor. This exercise officially concluded on May 21st of this year. Now that a decision has been made, it is appropriate to revisit the issue.

In short, and subject to conditions outlined below, the WMCC supports the marketing of blue bags in Hamilton-Wentworth, a position consistent with that expressed by Third Sector Recycling, the Region's recycling contractor. We reiterate our high regard for First Brands effort to consult with us in this regard, and we would like to suggest that you arrange to meet with the WMCC in order to indicate your intentions. Specifically, there are several concerns related to the marketing and use of blue bags that must be addressed before further action is taken.

Cont'd...

-page 2-
1991 May 31

Marketing of Glad Blue Bags in Hamilton-Wentworth (Cont'd)

These concerns focus primarily on the marketing and promotional aspect of retailing blue bags. Any such activity, both through the media and in-store promotion, would be subject to approval by the Region and Third Sector, the intent being that any references to material preparation and separation are consistent with the requirements of the program. In addition, we would ask that First Brands repromote blue bags when changes to the program occur. Whereas the use of blue bags could enhance collection efficiency, misuse of the blue bags could be of detriment to the program.

On the basis of an understanding between First Brands and the WMCC, the WMCC is willing to ask its Regional representative(s), who are directly responsible for the support, promotion, and administration of the recycling program, to approach Regional Council for an official endorsement of the Glad blue bag. Please arrange to meet with the Committee by contacting Ms. Susan Howe at (416) 546-2159, or Mr. Phil Jensen, at 546-4436.

D. Lobo, Chairman
Waste Management Coordinating Committee

PJ/pj

3a

ATTENTION: MR. KEN PIDSADNY

Dear Ken:

As per our conversation this morning, please find following this page five letters that the Natural Areas Subcommittee would like placed on the agenda of the next Chairman's Advisory Committee on Environmental Issues (August 8, 1991). As I explained to you in our telephone conversation, these constitute a part of the subcommittee's review of the Geomatics International Inc report titled "ESA Sensitivity Study". The other portion of our response to this report, a comment on the overall report, is still in preparation and should be available for the September meeting of CACEI. The matters dealt with in these letters, however, we felt should be dealt with as soon as possible. Essentially they address specific concerns raised by Geomatics in its report.

Don McLean
Vice-Chairman
Natural Areas Subcommittee

Mr. John Vogt
Ministry of the Environment of Ontario

Dear Mr. Vogt:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the Ministry of the Environment may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— The 1976 Ecologistics report on this ESA reported "fair water quality based on occasional summer temperatures exceeding 24C and occasional dissolved oxygen concentrations as low as 5 mg/L. Since the Ecologistics study indicated the presence of 13 fish species (of which 5 were "indicator species") and Geomatics reports the presence of an additional RARE fish species (the Redside Dace), are there any current water quality samplings of the reservoir and adjacent ponds for water temperatures and dissolved oxygen content (Geomatics reports none) and if not, why not, given the presence of significant fish species? What is the assessment of the Ministry on the affect of the Christie reservoir on water quality (especially the above two features), and what alternatives have been considered to improve the situation?

— Geomatics reports that "concentrations of ammonia exceeded the Provincial Water Quality Objective (PWQO) for the protection of aquatic life" on 6 of 12 test occasions upstream of the reservoir and on 5 of 12 occasions downstream in the 1988-1990 period. They also report that the PWQO for phosphorus was exceeded at both stations on all 4 occasions in both 1988 and 1990. Both phosphorus and ammonia enter this watershed from ORENCO and Tend-R-Fresh industries. The 1988 wastewater discharge summary for these two companies indicates that Tend-R-Fresh exceeded its Certificate of Approval Limits for ammonia in 10 of 12 months and for phosphorus in 8 of 12. Certificate of Approval limits were also exceeded in 1988 for suspended solids in 7 of the 12 months and for oil and grease in 2 of 12. 1989 information was not available to Geomatics. ORENCO exceeded the guidelines for suspended solids in 2 of 12 months and equalled the oil and grease limit on one occasion. What are the 1989 figures? What measures have been taken by MOE to deal with these violations of Certificate of Approval limits?

ESA 13 Spencer Gorge (Webster's and Tew's Falls)

— Geomatics expresses concern about leachate from the Steetly Brow Landfill site passing through the fractured bedrock below the site and contaminating Spencer Creek. It recommends that seeps below the site should be monitored annually and analyzed for nutrients, total phenols and total organic carbon to determine whether a leachate collection system is required at the base of the escarpment. What is the view of the Ministry of the Environment on this recommendation? What measures can be taken, and how quickly, to establish such a monitoring system?

ESA 14 Borer's Falls - Rock Chapel

— Geomatics recommends monitoring of the sugar maples being tapped by the Royal Botanical Gardens for evidence of die-back or other symptoms of direct

air pollution impingement. What monitoring programs of vegetation exist in Hamilton-Wentworth for effects of acid rain and other air pollution?

ESA 15 Cootes Paradise

— Geomatics recommends that anthropogenic sources of copper, iron, phenols and phosphorus resulting in exceedences of PWQO in Spencer Creek should be investigated. Can this be undertaken?

Thank you for your attention to these matters.

Mr. Dale Turvey
Regional Engineering Department
Regional Municipality of Hamilton-Wentworth
119 King Street West, 14th Floor
Hamilton, Ontario
L8N 3V9

Dear Mr. Turvey:

The Chairman's Advisory Committee on Environmental Issues, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality of Hamilton-Wentworth. We believe that the Regional Planning Department may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 14 Borer's Falls - Rock Chapel

— Geomatics investigators observed sediment contribution to Borer's Creek from the channelization project where the creek intersects Highway #5. Although it was raining at the time they were there "and the ground cover has been removed over a large area to the north of the highway", there was "no evidence of siltation curtains". Who was responsible for this project? Why were siltation curtains not in place?

ESA 25 Niagara Escarpment - Devil's Punch Bowl East

— Geomatics reports that surface runoff from Ridge Road either drains towards the escarpment or into a drainage ditch on the south side of the road which is drained via culvert pipes that discharge onto the face of the escarpment and are causing visible erosion to the escarpment face below each outlet, impacting the slope forest and undermining the roadway. They note the point at which Ridge Road crosses Stoney Creek as a specific example of this problem. Is Ridge Road under the jurisdiction of the regional engineering department? What measures can be taken to remediate this erosion problem?

— Geomatics also reports significant dumping at at least five sites along Ridge Road. These "occurred invariably where roadside parking or pulloff space was available". They particularly note the gravel parking lot on the west side of the Punch Bowl and recommend that it be removed. They also recommend consideration of realigning Ridge Road so that it is well back from the escarpment particularly at the Devil's Punch Bowl. Who is responsible for the parking lot in question and can measures to be taken to have it removed? What alternatives have been investigated to deal with the dumping of garbage over the face of the escarpment in this area? What legal remedies are currently available to deal with illegal dumping of refuse? How many charges have been laid in this regard in Hamilton-Wentworth in each of the past five years? What is the disposition of these cases? What is the authority of the regional government or the municipalities to deal with this problem?

Thank you for your attention to these matters.

Mr. Ben Vanderbrug
Manager
Hamilton Region Conservation Authority
P.O. Box 7099
Ancaster, Ontario
L9G 3L3

Dear Mr. Vanderbrug:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the HRCA may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— The 1976 Ecologistics report on this ESA reported "fair water quality based on occasional summer temperatures exceeding 24C and occasional dissolved oxygen concentrations as low as 5 mg/L. The Ecologistics study indicated the presence of 13 fish species (of which 5 were "indicator species") and Geomatics reports the presence of an additional RARE fish species (the Redside Dace). Are there any current water quality samplings of the reservoir and adjacent ponds for water temperatures and dissolved oxygen content (Geomatics reports none) and if not, why not, given the presence of significant fish species? What is the assessment of the HRCA on the affect of the Christie reservoir on water quality (especially the above two features), and what alternatives have been considered to improve the situation?

— Geomatics reports that "concentrations of ammonia exceeded the Provincial Water Quality Objective (PWQO) for the protection of aquatic life" on 6 of 12 test occasions upstream of the reservoir and on 5 of 12 occasions downstream in the 1988-1990 period. They also report that the PWQO for phosphorus was exceeded at both stations on all 4 occasions in both 1988 and 1990. Both phosphorus and ammonia enter this watershed from ORENCO and Tend-R-Fresh industries. The 1988 wastewater discharge summary for these two companies indicates that Tend-R-Fresh exceeded its Certificate of Approval Limits for ammonia in 10 of 12 months and for phosphorus in 8 of 12. Certificate of Approval limits were also exceeded in 1988 for suspended solids in 7 of the 12 months and for oil and grease in 2 of 12. 1989 information was not available to Geomatics. ORENCO exceeded the guidelines for suspended solids in 2 of 12 months and equalled the oil and grease limit on one occasion. We would like the comments of the HRCA on this situation. What measures have been taken by HRCA with regards to this situation?

ESA 13 Spencer Gorge (Webster's and Tew's Falls)

— Geomatics recommends that the HRCA consider removing two outdoor privies east of Webster's Falls on the Bruce Trail which it believes are in poor condition and are likely contributing to nutrient and fecal contamination of Spencer Creek. Has the HRCA considered such action? If not, could the HRCA comment on the Geomatics' recommendation.

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. How does the HRCA address this problem with regards to their properties? Would an inter-agency educational program be useful in this regard?

— Sedimentation and siltation loads are of considerable concern with regards to the Cootes Paradise ESA. All upstream developments not employing mitigating measures to stop sediment runoff are potential contributors to this problem. What role, if any, does the HRCA play in controlling sedimentation in the Spencer Creek and other area watersheds? In your view, what mitigating measures to control sedimentation should be required?

ESA 18 Dundas Valley

— Geomatics recommends that "control of surface erosion and elimination of stream siltation must be fully implemented for all developments within, adjacent and upstream of the Dundas Valley ESA". They recommend measures such as silt curtains, off-channel siltation ponds, rip-rap, etc. as well as regular maintenance of the control structures. They also suggest monitoring of development sites "at least weekly and daily during rain events". What current developments are taking place within, adjacent to and upstream of the Dundas Valley ESA? What mitigating measures are currently required to control surface erosion and stream siltation in each of these projects? What role does the HRCA play in control and monitoring of surface erosion and stream siltation from construction sites?

Thank you for your attention to these matters.

Mr. Jim Thoms
Planning and Development Department
Regional Municipality of Hamilton-Wentworth
119 King Street West, 14th Floor
Hamilton, Ontario
L8N 3V9

Dear Mr. Thoms:

The Chairman's Advisory Committee on Environmental Issues, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality of Hamilton-Wentworth. We believe that the Regional Planning Department may be able to help us resolve a number of concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— There are currently two proposed subdivisions for which no waiver or EIS file number exists. One is a 20 unit subdivision adjacent to the ESA at Highway 8 and Crooks Hollow Road. The other is a 41 unit subdivision north of Greensville (Spencer Creek Estates). Both are within the drainage area of the ESA downstream of the reservoir and may result in (1) uncontrolled access to the ESA and (2) sediment contamination during construction, and the latter may impact on Spencer Gorge and Cootes Paradise ESAs. What is the current status of these two proposals? Why is there no EIS or waiver on file?

ESA 14 Borer's Falls - Rock Chapel

— Geomatics reports excess siltation from construction of Eferding Estates and violations of the mitigating measures requested of the developer. What monitoring of this development took place and what reports were filed as a result?

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. Can the region consider an educational program for residents and homeowners adjacent to ESAs to encourage neighbour supervision? What other measures might be taken?

— Sedimentation and siltation loads are of considerable concern with regards to the Cootes Paradise ESA. All upstream developments which fail to employ mitigating measures to ensure no sediment runoff are potential contributors to this problem. What current developments are taking place in the Spencer Creek watershed (provide a list)? What mitigating measures to control sedimentation have been required in each of these developments? What other measures can or have been taken to improve this situation?

ESA 18 Dundas Valley

— Geomatics recommends that "control of surface erosion and elimination of stream siltation must be fully implemented for all developments within, adjacent and upstream of the Dundas Valley ESA". They recommend measures such as silt curtains, off-channel siltation ponds, rip-rap, etc. as well as regular maintenance of the control structures. They also suggest monitoring of

development sites "at least weekly and daily during rain events". What current developments are taking place within, adjacent to and upstream of the Dundas Valley ESA (provide a list)? What mitigating measures are currently required to control surface erosion and stream siltation in each of these projects? Who is responsible for monitoring of surface erosion and stream siltation from construction sites? How frequently are the inspections carried out?

ESA 19 Tiffany Falls

— Geomatics reports that a 35-lot subdivision called Falling Brook Estates is proposed for a site adjacent to and partly overlapping the southeast boundary of this ESA. They are concerned that insufficient information on this development proposal is available to determine possible impacts on nesting locations of rare bird species in this ESA. They are also concerned about increased access to the ESA. Can your department provide our committee with information regarding this development?

ESA 25 Niagara Escarpment - Devil's Punch Bowl East

— Geomatics is deeply concerned about a proposed expansion of the Mapleview Estates subdivision into the last remaining portion of the secondary escarpment plateau in this ESA. They point out that while such secondary escarpments are common in Grey and Bruce Counties they do not occur anywhere else but here in Hamilton-Wentworth. They report that "the loss of this last remnant of the plateau would clearly impact upon all three ESA criteria" and they recommend that the proposed expansion "should be fully evaluated prior to construction". With all due haste, can this committee receive a full report on this critical situation for review?

— Geomatics reports that several residential estate developments and a subdivision expansion have taken place adjacent to and/or within the ESA for which they cannot find either waivers or EISs. One is located at the western end of the ESA between Ridge Road and Highway #20 and "appears to have involved the clearing of a portion of forest above the escarpment". Can these charges be investigated and a report made to this committee? Specifically, why was the EIS/waiver process not followed? What measures can be taken as a result?

Thank you for your attention to these matters.

Mr. Peter Rice
Conservation Director
Royal Botanical Gardens
Box 399
Hamilton, Ontario
L8N 3H8

Dear Mr. Rice:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the HRCMA may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 14 Borer's Falls - Rock Chapel

— Geomatics recommends monitoring of the sugar maples being tapped by the RBG for evidence of die-back or other symptoms of direct air pollution impingement. Is the RBG doing this? What other monitoring programs of vegetation is the RBG carrying out on effects of acid rain and other air pollution in this region?
What results are available on such programs?

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. What charges have been laid in the last five years in this regard by the RBG and what was the disposition of these cases? Would an inter-agency educational program be of use in dealing with this problem? What other suggestions would the RBG make in this regard?

Thank you for your attention to these matters.



THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Planning and Development Department
119 King Street West, 14th floor
Hamilton, Ontario
(416) 546-4186 Fax (416) 546-4364
TDD-522-1787

3b.

Mailing Address:
P.O. Box 910, Hamilton, Ontario
L8N 3V9

August 22, 1991

Refer to File No. 764.34 1
Attention of
Your file No.

Mr. Daryl Cowell
Geomatics International
3370 South Service Road
Burlington, Ontario
L7N 3M6

Dear Mr. Cowell:

Re: Assessment of Marsh Located Beside
Volunteer Field
Town of Dundas

Further to our telephone conversation on Wednesday, August 21, 1991, Regional Council approved, on August 20th, the recommendations of the attached report regarding the above matter.

In line with the parameters of the study as specified in recommendation a), could you please prepare a work program for our review. You should be aware that the Region is examining the possibility of establishing a composting operation to the south of the Dundas transfer station; and the southerly 11 acres of the site are being considered for sale by the Region for industrial-business park purposes. We should be able to provide more detail on these matters as the study progresses.

In the interim, if you have the staff available, you could start required field work immediately since we would like to complete the study as soon as possible.

If you have any questions, I will be on vacation the last week of August, and will return to work on September 3rd.

Yours truly,

W. R. Pearce, M.C.I.P.
Head - Strategic Planning Division

BP:fd

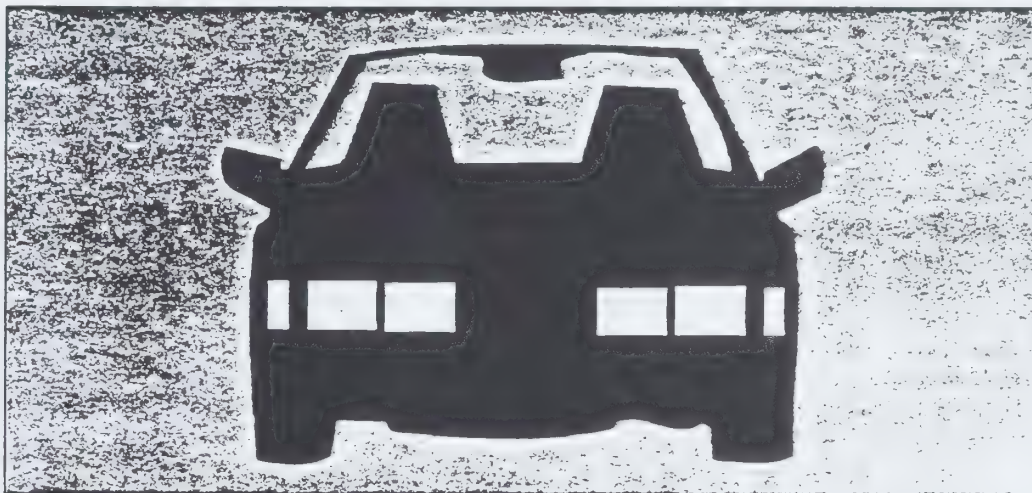
c.c. Jim Thoms
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Jim Halliday



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Toxic Air Pollutants

3c



from Mobile Sources

Emissions and Health Effects

The Westin Hotel - Renaissance Center
Detroit, Michigan

October 15-18, 1991

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AIR & WASTE MANAGEMENT
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Environmental Criteria
and Assessment Office

In Cooperation with
Motor Vehicle Manufacturers Association
American Petroleum Institute
Engine Manufacturers Association

Hosted by
Michigan Chapter, East Central Section,
Air & Waste Management Association

Another opportunity for technical exchange

Thursday, October 17

Session 3 - Alternative Fuels: Impact on Emissions and Air Quality

Cochairmen: Frank Black, Atmospheric Research and Exposure Assessment Laboratory (AREAL), U.S. EPA, Research Triangle Park, NC

Russel White, Chevron Environmental Health Center, Inc., Richmond, CA

8:00 a.m.

The Impact of Methanol and CNG Fuels on Motor Vehicle Toxic Emissions
Felix Black and P. Gabele, AREAL, U.S. EPA, Research Triangle Park, NC

8:25 a.m.

Oxidation Catalyst for Automotive Diesels - Emissions Performance and European Experience
Wolfgang Berg, Mercedes Benz, Stuttgart, Germany; J. G. Holmes, Energy and Environmental Analysis, Inc., Arlington, VA

8:50 a.m.

Exhaust Composition of Vehicles Fueled by Reformulated Gasolines
Paul Rieger, C. Maddox, and H. Oey, CARB, El Monte, CA

9:15 a.m.

Emissions from Gaseous Fuel Vehicles
S. Cadle, GM Research Laboratories, Warren, MI

9:40 a.m.

Break

Session 4 - Emission Inventories and Exposure Assessment

Cochairmen: Jaro Vostal, GM Environmental Activities Staff, Warren, MI

Joseph Somers, Mobile Sources Office, U.S. EPA, Ann Arbor, MI

10:00 p.m.

The Use of the Urban Airshed Model to Evaluate Mobile Sources-Related Air Toxics Concentrations
Michael Smylie, Clement International Corp., Fairfax, VA

10:25 a.m.

Re-evaluation of Diesel Engine Particulate Emission Inventories
E. J. Sienicki and R. Mago, Navistar International Transportation Corp., Melrose Park, IL

10:50 a.m.

Impact of Vehicular Pollution on Air Environment of Delhi - A Case Study
B. Sengupta, Central Pollution Control Board, Delhi, India

11:15 a.m.

Pollutant Concentrations from Vehicular Sources in Semi-Enclosed Situations
Tai Y. Chang and S. J. Rudy, Ford Motor Co., Dearborn, MI

11:40 a.m.

Mobile Sources Contribution to Personal Exposure to Benzene and Other Volatile Compounds
Lance Wallace, AREAL, U.S. EPA, Research Triangle Park, NC

12:05 p.m.

Lunch

Session 5 - Health Effects of Fuel Components and Emission Products

Cochairmen: Lester Grant, ECAO, U.S. EPA, Research Triangle Park, NC

Larry Roslinski, Ford Motor Co., Dearborn, MI

1:30 p.m.

Current EPA's Assessment Activities of Air Toxics from Mobile Sources
Charles Ris, Office of Health and Environmental Assessment, Washington, DC

1:55 p.m.

Risk Assessment of Formaldehyde Carcinogenicity
J. Cotruvo, Office of Pesticides and Toxic Substances, U.S. EPA, Washington, DC

2:20 p.m.

Current Information on the Evaluation of the Health Effects of Benzene, 1,3 - Butadiene, and Formaldehyde
Sharon Segal, Clement International Corp., Fairfax, VA

2:45 p.m.

Automotive Emissions and Asthma - Review of the Evidence
George Kazantzis, Imperial College, London, Great Britain

3:10 p.m.

Break

3:35 p.m.

Critical Issues in Benzene Toxicity
Michele Medinsky, Chemical Industry Institute of Toxicology (CIIT), Research Triangle Park, NC

4:00 p.m.

Current Approaches to the Understanding of Mechanisms of Benzene Leukemogenesis
Richard Irons, University of Denver, Denver, CO

4:25 p.m.

Species Differences in the Biotransformation of Butadiene to DNA Reactive Epoxides: Implications for Dosimetry Modeling
James Bond, CIIT, Research Triangle Park, NC

5:00 p.m.

Adjourn

Friday, October 18

Session 5 - Health Effects of Fuel Components and Emission Products (Continued)

Cochairmen: Lester Grant, ECAO, U.S. EPA, Research Triangle Park, NC

Larry Roslinski, Ford Motor Co., Dearborn, MI

8:00 a.m.

Health Hazards Associated with Public Exposures to Diesel Exhaust - An Experimental Data Update
Werner Stoeber, Fraunhofer Institute, Hannover, Germany

8:30 a.m.

Comparative Formations of DNA-Protein Crosslinks by Formaldehyde in the Respiratory Tract of Rats and Monkeys
Mercedes Casanova, CIIT, Research Triangle Park, NC

9:00 a.m.

Predicting the Cancer Risk of Airborne Formaldehyde
Stanley Dawson, State of California Department of Health Services, Sacramento, CA

9:30 a.m.

Methanol Health Effects Issues
Michael Davis, ECAO, U.S. EPA, Research Triangle Park, NC

10:00 a.m.

Break

Session 6 - Research Needs and Future Directions

Cochairmen: Judy Graham, ECAO, U.S. EPA, Research Triangle Park, NC

Andrew Sivak, Health Effects Institute, Cambridge, MA

10:30 a.m.

Current and Future Directions in Air Toxics Health Research - An EPA Perspective

Ken Sexton, Office of Research and Development, U.S. EPA, Washington, DC

11:00 a.m.

Petroleum Industry Perspectives on Future Air Toxics Research Needs

Terry Yosie, American Petroleum Institute, Washington, DC

11:30 a.m.

Current and Future Research Needs in Health Effects of Air Toxics - An Automobile Industry Perspective

Steve Pezda, Ford Motor Co., Detroit MI; J. J. Vostal, GM Environmental Research Staff, Warren, MI; H. Wimette, Chrysler Motor Co., Detroit, MI

Noon

Closing Remarks

Jaro Vostal, Technical Program Cochairman, GM Environmental Research Staff, Warren, MI

12:15

Adjourn

Registration Form

Toxic Air Pollutants From Mobile Sources: Emissions and Health Effects

The Westin Hotel - Renaissance Center - Detroit, MI - October 15-18, 1991

First Name

Last Name

Name/Nickname for Badge

Company

Address

City

State/Province

Country

Zip/Postal Code

Phone

Advanced registration deadline:
October 1, 1991

Advanced Registration (Before October 1, 1991)

On-site Registration

CONFERENCE REGISTRATION FEE

(October 16-18, 1991)

Complete conference registration includes technical sessions, two luncheons, refreshment breaks, reception, and a proceedings.

Member fee

\$195

\$235

All others

\$270*

\$315*

COURSE REGISTRATION FEE

(October 15, 1991)

Complete course registration includes lunch, refreshment breaks, and a manual.

Member Fee

\$310

\$350

All others

\$390*

\$430*

Conference Fee \$ _____

Course Fee \$ _____

Total Due \$ _____

***If you are not a member, check below to join the Air & Waste Management Association.**

☐

I have paid the registration fee for the conference or the course and would like to become a member of the Air & Waste Management Association until April 30, 1992, at no additional cost.

Please indicate method of payment:

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Signature _____

Please mail completed form, with your payment or credit card information, to Air & Waste Management Association, P.O. Box 2861, Pittsburgh, PA 15230.

20500/07/19/91

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Technical Program Cochairmen

Jaro J. Vostal
GM Environmental Activities Staff,
Warren, MI

Lester D. Grant
ECAO, U.S. EPA

General Conference Chairman

James Ball
Research Staff, Ford Motor Co.

Facilities

Donna Fickeisen
Great Lakes Steel

Audiovisual

Michael Tyro
GM Auditing Dept.

On-site Registration

Nancy Redwing
Research Staff, Ford Motor Co.

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Myron Black, Vice Chairman
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East Central Section

Robert Brubaker, Chairman
David Jordan, Vice Chairman
Alan Greenberg, Secretary
Robert Parker, Treasurer

Health and Environmental Effects Committee (AT-3)

Jaro J. Vostal, Chairman
Justice Manning, Secretary

For Exhibition Information call Tom Wackerman at (313) 663-3200.



**AIR & WASTE MANAGEMENT
ASSOCIATION**

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Pittsburgh, Pennsylvania 15230
412/232-3444

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Course Program

Tuesday, October 15

7:30 a.m.
Registration

8:30 a.m. - 5:00 p.m.
**91M-1 "Use of the MOBILE4.1
Program in Estimating Vehicle
Emissions"**

Overview

This course provides an overview of U.S. EPA model "MOBILE4.1" and discusses its use to obtain information on emission levels from motor vehicles.

MOBILE4.1 is currently used by states to prepare the emission inventories required by the Clean Air Act Amendments of 1990. The program estimates levels of hydrocarbons, carbon monoxide, and oxides of nitrogen from highway motor vehicles. It uses data from tests performed on privately owned vehicles and information on travel patterns, fleet characteristics, and emission regulations to calculate emissions factors for eight types of highway vehicles.

This course would be of interest to people responsible for estimating emissions from highway motor vehicles, preparing emissions estimations, maintaining air quality, or studying the impact of vehicles on air quality.

Course Outline

- I. EPA's Emission Factor Program (raw data collection)
- II. Overview of the Emission Factor Model MOBILE4.1
- III. Input to the Model
 - a. required
 - b. optional
- IV. Output from the Model
- V. How the Emission Factors Produced by the Model are Used

Instructors:

Louis Platte and Terry Newell, Office of Mobile Sources, U.S. EPA, Ann Arbor, MI
Thomas Darlington, Environmental Activity Staff, General Motors, Warren, MI

Conference Program

Wednesday, October 16

8:00 a.m.
Registration

9:00 a.m.
Welcome

Kevin Dunn, Michigan Chapter Chairman
Nortru, Inc., Detroit, MI

Lester Grant, Technical Program Cochairman, Environmental Criteria and Assessment Office (ECAO), U.S. EPA, Research Triangle Park, NC

9:15 a.m.
Keynote Speaker

Charles L. Gray, Jr., Mobile Sources Office, U.S. EPA, Ann Arbor, MI

"Air Toxics from Mobile Sources and the Requirements of the 1990 Clean Air Act Amendments"

10:00 a.m.
Break

Session 1 - Mobile Sources Air Toxics Issues

Cochairmen: Richard L. Klimisch, GM Environmental Activities Staff, Warren, MI

Bruce Jordan, Office of Air Quality Planning and Standards (OAQPS), U.S. EPA, Research Triangle Park, NC

10:30 a.m.
Motor Vehicle Toxics - The Risk in Perspective
Sam Leonard, General Motors (GM) Environmental Activities Staff, Warren, MI

11:00 a.m.
Toxicologic Issues in Assessing Health Risks of Mobile Sources
Roger O. McClellan, Chemical Industry Institute of Toxicology, Research Triangle Park, NC

11:30 a.m.
Uncertainties in the Risk Assessment of Air Toxics from Mobile Sources
John Graham, Harvard School of Public Health, Boston, MA

Noon
Lunch

Session 2 - Conventional Fuels: Emission Speciation and Atmospheric Models

Cochairmen: Don K. Lawrence, Amoco Oil Co., Naperville, IL

Alan Dunker, GM Research Laboratories, Warren, MI

1:30 p.m.
Toxic Air Pollutants with Reformulated Gasoline in Current and Older Vehicles
William Koehl, Mobil Research and Development, Paulsboro, NJ

2:00 p.m.
Air Pollutants from European Passenger Cars - Emissions and Ambient Air Concentrations
Horst Klingenberg, D. Schurman, and K. H. Lies, Volkswagenwerk AG, Wolfsburg, Germany

2:30 p.m.
Recent Air Quality Modeling Results from the Auto/Oil Industry Research Program
Alan Dunker, GM Research Laboratories, Warren, MI

3:00 p.m.
Break

3:30 p.m.
Composition and Reactivity of Exhaust from Low Emission Vehicles
Paul Rieger and W. McMahon, California Air Resources Board (CARB), El Monte, CA

4:00 p.m.
Examination of Recent ARB Data on Nonregulated Emissions
Leo Zafonte, J. Horrocks, and C. Lai, CARB, El Monte, CA

4:30 p.m.
Analysis of Benzene and Toluene in Vehicle Exhaust
M. A. Dearth, C. A. Gierczak, and W. O. Siegl, Ford Motor Co., Dearborn, MI

5:00 p.m.
Adjourn

5:00 - 6:30 p.m.
Reception

General Information

Course Information

A one-day continuing education course, 91M-1 "Use of the MOBILE4.1 Program in Estimating Vehicle Emissions" will be held on October 15. A description is provided on the next page.

About the Association

The Air & Waste Management Association provides a neutral forum where environmental professionals share technical and managerial information about air pollution control and waste management. This worldwide network of more than 12,000 members represents all disciplines and provides all viewpoints of environmental issues.

The Association conducts 10 to 12 specialty conferences and symposia each year. These technical programs are comprehensive, informative, and timely. Experts from around the world present papers and contribute to the conference or symposium proceedings. Continuing education courses and exhibitions relating to the conference topics are usually offered.

Conference and Course Registration

Complete the advanced registration form in this brochure to register for the conference or the course. Mail it with your check to the Air & Waste Management Association, P.O. Box 2861, Pittsburgh, PA 15230. Advanced registration must be re-

ceived by October 1, 1991. After this date, only on-site registration is available at a higher fee. Direct your questions concerning registration to Debbie Reichert, Air & Waste Management Association, (412) 232-3444.

your room reservations by September 24, 1991. Please be sure to mention the Air & Waste Management Association conference to receive the reduced rate.

Conference Overview

This conference will provide new data on emissions from mobile sources and will examine the evidence for their potential effects on public health. It is intended for those who measure, regulate or study mobile source emissions. Attendees will discuss chemical speciation of emissions from conventional and alternative-fueled vehicles, re-evaluate emissions inventories and exposure assessments, review health effects of individual fuel components and emission products, and outline future research needs.

Since Title II provisions of the 1990 Clean Air Act Amendments require that the regulatory agency evaluate the need for controlling emissions of currently unregulated air pollutants before June 1992, the conference will provide useful inputs for the report.

Refund Policy

To receive a refund (less \$25), make your request in writing to the Air & Waste Management Association by October 9, 1991. No refunds will be given after that date for any reason. However, you may substitute people by notifying the Association.

Hotel Information

The Westin Hotel - Renaissance Center is located at Renaissance Center, Detroit, MI 48243. A block of rooms has been reserved for the conference attendees. Make your reservations directly with the Westin Hotel by calling (313) 568-8000.

Single and double occupancy is \$85. To ensure availability, make

Transportation

Airport Commuter Transportation Van Service runs every hour until midnight from the Detroit International Airport to the Westin Hotel. The cost is approximately \$13.50 one way. Taxi service is approximately \$30. Reservations are necessary. Both can be made in the baggage claim area.

Airline Arrangements

Rosenbluth Travel Agency, Inc. is handling travel arrangements to the conference. To receive your discounted airfare, phone Rosenbluth at 1-800-541-4588. Identify yourself as an "Toxic Air Pollutants from Mobile Sources: Emissions and Health Effects" conference attendee and the agent will help you arrange the most economical flight available.

Proceedings

Conference proceedings are mailed to all fully paid conference registrants approximately four months after the conference.



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LAQUA Dental Equipment Limited 147 King Street East, Hamilton, Ontario L8N 1B1

Mr. Ken Pidsadny
Clerks office, Region of Hamilton
119 King West, 15th Floor
Hamilton, Ontario

546-4304

AUG 30 1991

REGIONAL CLERKS OFFICE

August 14th, 1991

Dear Mr. Pidsadny,

re: environmental meeting on September 12th, 1991

Please find enclosed information with regards to pollution in the dental industry:

- 1) Translation of German legislation
- 2) Translation of Swiss Legislation
- 3) Swiss study on Mercury pollution in the dental industry
- 4) Swedish report on pollution in the dental industry
- 5) Original wording of legislation from Holland
- 6) Translation of Swiss application for 70% amalgam collector
- 7) Article stating that some dental offices were closed in US due to pollution
- 8) Letter from Environmental Dental Association
- 9) Letter from Dr. Rubin, International Academy of Oral Medicine and Toxicology
- 10) Letter from the Honourable Bob Rae
- 11) Letter from the Honourable Jean J. Charest
- 12) German study on Mercury pollution in dental industry and translation thereof
- 13) Recommendation by National Institute of Health

Please forward this information to the committee members, so that they have a chance to familiarize themselves with the subject.

We are a dental manufacturer, specializing in environmental products. We also do recycle dental amalgam.

If you have any question before September 12th, please do not hesitate to contact me any time.

Yours truly,
Laqua Dental Equipment Ltd.

C O N T E N T S

- 1) Translation of German legislation
- 2) Translation of Swiss Legislation
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Translation of

"Gemeinsames Ministerialblatt"
G 3191 A, ISSN 0341-1435, Issue 25, page 526
Federal Republic of Germany,
Bonn, September 22, 1989
Chancellor Helmut Kohl

(1)

Appendix 50
Dental practices

1 Application

1.1. Waste water, which dirt load is mainly released from treatment units in dental practices and dental clinics where amalgam is used.

1.2. Exclusions

1.2.1 Waste water from film developing

1.2.2 Sanitary waste water

2 Requirements

For the disposal of waste water the following requirements according to technological standard are applicable:

2.1. The load of amalgam from waste water from treatment units has to be reduced 95% before mixing with other sanitary waste water.

2.2. Compliance with the requirements under 2.1. is mandatory. The demands are satisfied, when:

2.2.1 In the emission stream, before merging with other sanitary waste water, an approved amalgam collection system is installed and operational. The amalgam collection system must have an efficiency rate of at least 95%;

2.2.2 Waste water, contaminated with amalgam, is directed through the amalgam collection system;

2.2.3 A suction procedure is used in the treatment unit, which keeps the water flow low enough, that the amalgam collection system is able to keep its required efficiency rate;

2.2.4 The amalgam collection system is serviced and emptied regularly according to the manual and written documentation is available (service report, receipt of amalgam receiver);

2.2.5 The amalgam collection system is tested for proper condition in intervals not exceeding 5 years.

3 Requirements for depositing amalgam

The collected amalgam must to be stored in an appropriate container. According to hygienic requirements and waste regulations, above and beyond the requirements listed in section 2.2.4, these wastes have to be forwarded for utilization.

- 2.3 Die Einhaltung der Anforderung nach Nummer 2.1.1 für den Chemischen Sauerstoffbedarf (CSB) kann auch durch die Bestimmung des Gesamten organischen Kohlenstoffs (TOC) überprüft werden. In diesem Fall ist für den CSB der dreifache Wert des TOC, bestimmt in Milligramm je Liter, einzusetzen.
- 2.4 Abweichend von Nummer 2.2.4 der Rahmenverwaltungsverfahrensvorschrift beträgt die höchstens zulässige Überschreitung 50 v. H.

Anhang 50

Zahnbehandlung

- | | |
|---|--|
| <p>1 Anwendungsbereich</p> <p>1.1 Abwasser, dessen Schmutzfracht im wesentlichen aus Behandlungsplätzen in Zahnarztpraxen und Zahnkliniken, bei denen Amalgam anfällt, stammt.</p> <p>1.2 Ausgenommen</p> <p>1.2.1 Abwasser aus der Filmentwicklung</p> <p>1.2.2 sanitäres Abwasser.</p> <p>2 Anforderungen</p> <p>An das Einleiten des Abwassers werden folgende Anforderungen nach dem Stand der Technik gestellt:</p> <p>2.1 Die Amalgamfracht des Rohabwassers aus den Behandlungsplätzen ist vor der Vermischung mit sonstigem Sanitärabwasser um 95 % zu verringern.</p> <p>2.2 Die in Nummer 2.1 bestimmte Anforderung ist einzuhalten. Sie gilt als eingehalten, wenn</p> <p>2.2.1 in den Ablauf der Behandlungsplätze vor Vermischung mit dem sonstigen Sanitärabwasser ein durch Prüfzeichen und gegebenenfalls nach Landesrecht zugelassener Amalgamabscheider eingebaut und betrieben wird und dieser einen Abscheidewirkungsgrad von mindestens 95 % aufweist;</p> | <p>2.2.2 Abwasser, das beim Umgang mit Amalgam anfällt, über den Amalgamabscheider geleitet wird;</p> <p>2.2.3 für die Absaugung des Abwassers der Behandlungsplätze Verfahren angewendet werden, die den Einsatz von Wasser so gering halten, daß der Amalgamabscheider seinen vorgeschriebenen Wirkungsgrad einhalten kann;</p> <p>2.2.4 der Amalgamabscheider regelmäßig entsprechend der Zulassung gewartet und entleert wird und hierüber schriftliche Nachweise (Wartungsbericht, Abnahmebescheinigung für Abscheidegut) geführt werden und</p> <p>2.2.5 der Amalgamabscheider in Abständen von nicht länger als 5 Jahren nach Landesrecht auf seinen ordnungsgemäßen Zustand überprüft wird.</p> <p>3 Abfallrechtliche Anforderungen an die Entsorgung des Abscheidegutes</p> <p>Das abgeschiedene Amalgam ist in einem dazu geeigneten Behälter aufzufangen und über die Anforderungen der Nummer 2.2.4 hinaus gemäß den geltenden Hygienebestimmungen und – soweit es sich bei dem Abscheidegut um Abfälle i. S. des Abfallgesetzes handelt – den abfallrechtlichen Vorschriften einer Verwertung zuzuführen.</p> |
|---|--|

(2)

Translation of

"Installationsbestimmungen fuer Amalgamabscheider
in der Schweiz"

Regulations for installing amalgam collection systems
in Switzerland

I

Beginning July 01, 1989 all new dental offices and all treatment units which are re-installed or newly installed in existing practices must be equipped with an amalgam collection system. This collection system must have an separation rate of at least 95%.

II

Until the end of 1989 all suction systems in existing treatment units must be equipped with a suitable amalgam collector. This collection system must have an separation rate of at least 70%.

III

Until the end of 1993 all treatment units must be equipped with an amalgam collector. This collection system must have an separation rate of at least 95%.

IV

This mandatory installation requirement for amalgam collectors is not applicable in dental treatment offices where no amalgam is used.

V

Amalgam and amalgam contaminated pipes and hoses are extraordinary waste and have to be treated as such.

to I and II

- The 95% must be reached with the largest possible amount of water going through the unit by a security margin of 20%. This means: Is a unit producing with activated micro motors, suction tube, cooling system and bin the amount of 2 liters of water per minute, the separation rate of 95% must be reached at 2.4 liters per minute.

- One separation system should be installed per treatment unit. Connecting more units will create some consequences:

- the slope of the connecting pipes must be at all times at least 4%. - every two years the connecting pipes have to be exchanged and professionally treated. (see V)

- The amalgam separators must not be used if the collecting container is full.

- The treatment unit and the separator must be accompanied with a device document, which guarantees the maximum amount of water of the unit, the efficiency rate and which also lists the dates the device is serviced.

- Each treatment unit must have a record book for:
1) service and 2) waste disposal

- Only certified companies shall service Amalgam separators

to I, II and III

- Connected to the separators must be:
Suction system, bin, spitting funnel

- The efficiency rate applies to a sample with the following particle sizes:

- 1.6 g particles between 3.0 and 0.5 mm
 - 0.4 g particles between 0.5 and 0.1 mm
 - 8.0 g under 0.1 mm

- The collecting container must be conceived as a environmentally friendly one way container.

- In the future water ring pumps and injectors should be avoided, as they reduce the efficiency rate drastically.

Swiss report/ SSO Translation, Zuerich water treatment

Translation of paragraphs from report of water treatment plant of the City of Zuerich, Switzerland

Page 2, para. 4

Effect of mercury pollution in sewage water resulting from dental offices.

In two cases sewage water was examined before and after a dental office.

- 1) Schulzahnklinik Schwamendingen, Ahornstrasse 9
mercury before building: 6.9 mg Hg/ kg TS
after : 143 mg Hg/ kg TS
- 2) Zahnaerztliches Universitaetsinstitut
mercury before building: 260 mg Hg/ Kg TS *
after : 2300 mg Hg/ Kg TS

* data strongly raised due to university hospital
(200 meters distance 5300 mg Hg/kg TS)

TS means Trockensubstanz (dry substance)

The amount of mercury in the sewage water is increasing extremely in the catchment area of a dental office.

page 2, para. 5

Relative importance of dental offices in regards mercury in sewage water

Seven dental offices were examined. The samples were taken in the nearest suitable manhole. Following amounts of mercury could be found in the sewage water:

Dental offices	mercury (mg/kg TS)	distance to manhole
<u>private offices:</u>		
Ohmstreet 14	245	30 m
Schwamendingenstreet 5	398	20 m
<u>schooling clinics:</u>		
Ahornstreet 9	143	70 m
Parkring 4	267	50 m
Goldbrunnenstreet 78	380	30 m
Altstetter Street	54	150 m
<u>university dental clinic:</u>		
Plattenstreet 11	2300	120 m
average level	ca. 20	

cont. page 2, para. 5

The results show that dental offices discharge a very large portion of mercury into the sewage water, although it is too early to make transport statements. Also it is important to consider the distance from the manhole to the discharge place. (page 3, para. 5) Nevertheless, the dental office can be considered as one of the major mercury dischargers.

page 3, para. 7.

Further action (suggestion)

Dental offices and the hospitals could be informed of the problem of mercury pollution by means of a letter. By internal improvements of work methods and separation of amalgam the Hg freight can be decisively reduced. However, these improvements will take effect after appr. one year, as the Hg-mud has mainly settled in the mains and only through rinsing they will enter the public sewage system and water treatment plants.



Tiefbauamt der Stadt Zürich

Stadtentwässerung

Liegenschaftsentwässerung
Industrie + Gewerbe

Bericht zum zweiten, verfeinerten Sielhaut-Untersuchungsprogramm

1. Aufgabenstellung:

In den beiden Kläranlagen Werdhölzli und Glatt ist der Quecksilbergehalt in den Klärschlämmen ca. 5-7 mg Hg/kg TS*. Dies ergibt eine ungefähre Gesamtmenge von 100 kg pro Jahr.
(* TS = Trockensubstanz)

Diese, in Bezug auf andere Schwermetalle belanglos erscheinende Menge (Zink ca. 300 mal mehr), stört bei einer eventuellen Verbrennung des Klärschlammes.

2. Reproduzierbarkeit der Sielhautuntersuchung

Beim Abfluss aus dem Stadtspital Waid wurden am 10. Januar 1986 sowie am 23. April 1986 am gleichen Ort Sielhautproben genommen.

Datum	GR x TS	Hg	Zn	Ni	Pb
10.1.86	33,6	97	1540	26	119
23.4.86	30,9	88	1580	10	246

Zumindest bei den spezifischen Metallen (hier Hg und Zn) scheint eine gute Reproduzierbarkeit vorzuliegen.

Nickel ist kaum vorhanden und Blei unterliegt diversen Einflüssen.

3. Grundpegel von Quecksilber in den Sielhäuten

Sechs Proben dürfen als "Grundwerte" für die Quecksilbermessungen in den Sielhäuten angeschaut werden.

Diese ergaben folgende Werte: 7, 20, 20, 23, 24, 27 mg Hg/kg TS. Mit dem Durchschnittswert von 20 mg Hg/kg TS liegt der Quecksilberwert in den Sielhäuten rund dreimal höher als im Klärschlamm.

4. Einfluss der Zahnarztpraxen auf die Quecksilberfracht in Sielhäuten

In zwei Fällen wurde die Sielhaut vor und nach einer Zahnarztpraxis untersucht.

1. Schulzahnklinik Schwamendingen, Ahornstrasse 9
 Quecksilber vor Zahnklinik: 6,9 mg Hg/kg TS
 " nach " : 143 mg Hg/kg TS
2. Zahnärztliches Universitätsinstitut
 Quecksilber vor Zahnklinik: 260 mg Hg/kg TS *
 " nach " : 2300 mg Hg/kg TS

* Wert stark erhöht durch Universitätspital (200 m entfernt 5300 mg Hg/kg TS !)

Die Quecksilbermengen in den Sielhäuten nehmen also extrem zu im Einzugsgebiet einer Zahnarztpraxis.

5. Stellenwert der Zahnarztpraxen bezüglich Quecksilber im Abwasser

Sieben Zahnarztpraxen wurden untersucht. Die Proben wurden jeweils im nächsten geeigneten Schacht entnommen. Folgende Mengen an Quecksilber konnte in den Sielhäuten gefunden werden:

Zahnarztpraxen	Quecksilber (mg/kg TS)	Entfernung zum Proben.ort.
<u>Private Zahnärzte:</u>		
Ohmstrasse 14	245	30 m
Schwamendingenstr. 5	398	20 m
<u>Schulzahnkliniken:</u>		
Ahornstrasse 9	143	70 m
Parkring 4	267	50 m
Goldbrunnenstr. 78	380	30 m
Altstetterstr.	54	150 m
<u>Unizahnklinik:</u>		
Plattenstr. 11	2300	120 m
Grundpegel	ca. 20	

Diese Resultate zeigen auf, dass die Zahnarztpraxen einen sehr grossen Anteil der Quecksilbermenge ins Abwasser lassen, wenn es sicherlich im Moment auch noch zu früh ist frachtmässige Aussagen zu machen. Zu berücksichtigen ist im hohen Masse auch die Entfernung des Probenahmeortes zum Einleiter.

Das Zahnärztliche Institut kann jedoch als einer der grossen Quecksilbereinleiter angenommen werden.

6. Stellenwert von Spitälern bezüglich Quecksilber in Abwasser

Bei den Spitälern können vier Resultate aus drei Spitälern zur Beurteilung herangezogen werden.

Spital	Quecksilber (mg/kg TS)	Entfernung zum Probe- nahmeort
Stadtspital Waid	88/97	ca. 100 m
Pflegerinnenschule	213	ca. 150 m
Universitätspital: Ausgang Universitätstr.	54	direkt
Ausgang Gloriastr.	5300	direkt
Ausgang Gloriastr.	260	nach ca. 120m

Auch im Einzugsgebiet von Spitälern sind die Siedehäute also hoch- bis höchstbelastet mit Quecksilber. Zahlenmässig fallen jedoch die ca. 20 Spitäler in der Stadt Zürich nicht sehr ins Gewicht (über 300 Zahnärzte).

7. Weiteres Vorgehen (Vorschlag)

In einer Informationsschrift können die Zahnärzte und Spitäler auf die Problematik der Quecksilberbelastung aufmerksam gemacht werden. Durch interne Verbesserungen in der Arbeitsweise sowie Abscheidung des Hg-Amalgams kann die Hg-Fracht entscheidend vermindert werden. Allerdings wird diese Verbesserung erst mit einer Verzögerung von ca. einem Jahr eintreten, da die Hg-Gemenge hauptsächlich in den Leitungen abgelagert sind und erst bei einer Spülung in die öffentliche Kanalisation und Kläranlage gelangen.

8. Anhang

8.1 Probenahmestellen

Nr.	Ort
2	Wunderlistrasse 45
3	Ohmstrasse 14
4	Schwamendingenstrasse 5
5	Ahornstrasse vor 9
6	Ahornstrasse nach 9
7	Plattenstrasse vor 11
8	Plattenstrasse nach 11
11	Samariterstr./Klosbachstrasse
12	Parkring 4
13	Goldbrunnenstr. 78
14	Altstetterstr. 250
438	Universitätstr. Universitätspital
439	Gloriastrasse Universitätspital



8.2 Analysenresultate

Nr.	GR (%TS)	Hg	Zn	Cu	Cd	Pb	Ni	Ag	Cr
2	30.9 %	88	1580	1270	6.0	246	9.7	30.5	363
3	28.9 %	245	3000	2360	7.3	281	19.4	85.0	48.7
4	60.0 %	398	4160	356	12.4	400	36.0	124	54.5
5		7							
6	73.3 %	143	1330	598	6.5	492	37.0	57.1	58.8
7	38.2 %	260	1500	1660	4.0	330	115	12.5	195
8	49.2 %	2300	1350	1810	4.3	1330	148	21.9	178
11		213							
12	56.0 %	267	3310	598	7.4	400	112	75.9	46.2
13		380							
14	59.8 %	46	1130	338	4.8	314	51.7	41.1	61.7
438	93.6 %	54	1320	223	4.7	115	46.0	64.6	2920
439	81.7 %	5300	2830	1360	18.3	953	135	77.8	317

Zürich, 20. Juni 1986
Lt/cs

Geht an: Wi, Co, HRK, St, RK, Ec



National Swedish
Environment Protection Board

Report

Tuhes

SNV pm

1643

Report date
1983-01-21

Division

Author(s)

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4

Title

THE TURNOVER OF MERCURY IN SWEDEN

Abstract

During the past 15 years great efforts have been made in Sweden to decrease the mercury emission from industrial, agricultural and other sources. The turnover of mercury in 1981 was investigated for all sectors using mercury either intentionally or unintentionally and the resulting emissions summarized and compared with the corresponding figures from 1976.

The latest findings on the behaviour of mercury in the environment seem to point to the possibility of discriminating between the different forms of mercury emitted and asserting the potential environmental risk.

Swedish report about amalgam in
dental surgeries.

1983

Available from
Statens Naturvårdsverk
Biblioteket

Mailing address
Box 1302
S-171 25 Solna, Sweden

DENTAL AMALGAMS, CREMATORIA AND REFINERIES OF WASTE AMALGAM AND MERCURY

A. DENTAL AMALGAMS

1. Introduction

Metallic mercury is used to produce dental amalgams. These consist of an alloy of metallic mercury with a metallic powder, of which silver, copper and tin are the main ingredients. The silver content of the non-mercury component is about 70 per cent. The two components are mixed at the dental surgeries, on an approximately 50/50 basis. After hardening the content of mercury is 40-50 per cent.

Dental amalgams are also used to some extent by dental technicians in the production of dental restorations.

2. Turnover of dental amalgam in a dental surgery

A full-time working dentist in Sweden consumes from 1.3 to 1.5 kg of metallic mercury per year according to Halldin and Pettersson (1); these figures are in accordance with those reported later by Øilo (2) from Denmark and the USA.

The turnover of mercury in a dental surgery results in the production of mercury-contaminated waste products that can be classified into three categories (3):

I. Highly contaminated solid amalgam wastes

- excess amalgam and possible spill during preparation
- amalgam in dental restorations
- extracted teeth with amalgam fillings
- solid residues from the sewage system of the practice (including floor drains and water seals).

II. Lightly contaminated solid wastes

- emptied amalgam capsules and mercury flasks
- used pieces of cotton cloth and other textiles that have been in contact with amalgam.

III. Waste water from the surgery.

The small amounts of mercury that may evaporate or be swallowed during treatment are not included in categories I and II.

A total turnover of mercury from the dental sector in Sweden should also include the amount of mercury in persons that have died during the year.

3. Mercury turnover in the dental sector in 1976

Halldin and Petterson's (1) figures for the total mercury turnover in the dental sector in Sweden in 1976 are summarized in table 1.

Table 1. Mercury turnover in the dental sector in 1976

	Dentists Hg kg/year	Dental technicians Hg kg/year	Total Hg kg/year
Consumption	8000 - 10200	600 - 700	9400 - 10900
Recirculated wastes	2900 - 3300	520 - 600	3400 - 3900
Waste water discharges	3400 - 4000	10 - 15	3400 - 4000
Waste for deposition	2000 - 2500	-	2000 - 2500
Other losses	-	70 - 85	70 - 85

The "recirculated wastes" part of the table consists mainly of the amalgam in excess of that required for the operations. This amalgam is sent to the refineries of waste amalgam and mercury.

The quantity of mercury that is lost to the waste water via the spittoon or the suction apparatus depends on whether the preparations are done on teeth previously treated with amalgam, since it has been estimated (1) that, in these cases, around 40 per cent of the old amalgam fillings are replaced. It has been reported by Mjör (4) that as much as 70 per cent of all restorations with amalgam are replaced.

The "waste for deposition" part of the table is made up of about 80 per cent of the mercury in unrecovered extracted teeth (~1500 kg) and in teeth of persons who have died (~500 kg), and of about 20 per cent of the mercury in less contaminated wastes (~400 kg). One part of the mercury included in these figures, estimated at around 700 kg Hg per year by Halldin and Pettersson, was assumed to be emitted to the air (from the combustion in crematoria and municipal waste incinerator plants).

It should also be noted that, in 1976, dental technicians used almost 10 per cent of the total mercury consumption in the dental sector.

The figures of Halldin and Pettersson agree rather closely with those presented by Strudsholm (6) for the situation in Denmark at about the same time. Strudsholm reported that, out of a total use of 4 tons of mercury per year in the dental sector, 1-1.5 tons were emitted to the waste water system, around 1 ton was sent for metal recovery and the rest (from extracted teeth, teeth in dead persons, collected solid wastes) was either emitted to the atmosphere after incineration, or deposited.

4. Amalgam separators and handling of solid wastes

The National Swedish Environment Protection Board has come to an agreement with the users and producers of dental equipment in Sweden on a procedure for reducing the loss of mercury from dental surgeries (3, 5). In order to cut down waterborne losses, all units have to, according to the agreement, be provided with amalgam separators. These separators shall be able to remove at least 95 per cent of the total amount of amalgam/^{Summe} mercury transferred to the waste water through the

Strudsholm

spittoon and suction apparatus. From now on all new units must be provided with such a separator and from 1985-01-01 at the latest, all units in operation must have one.

Three separators of different type and performance have been constructed in Sweden. To date (autumn 1982), some 1000 - 1500 separators have been installed.

It is intended that the amalgam collected in this way should be recirculated via the refineries of waste amalgam and mercury. It is, however, obvious that the separated sludge will be of somewhat inferior quality to the amalgam recirculated at present.

Another part of the agreement concerns the handling of solid wastes. It has been agreed that all amalgam-contaminated wastes shall be collected either for the recovery of mercury or for storage while awaiting future recovery.

5. Mercury turnover today and future trends

The total mercury consumption in the dental sector in Sweden is estimated today to lie between 5 and 10 tons per year. The highest figure results from calculations based on the estimated mean yearly consumption of mercury by Swedish dentists and the lower one from estimates carried out by representatives of the refineries of waste amalgam and mercury.

Dentists are in general agreement that some small increase in the use of non-mercury fillings may have taken place during recent years. A significant decrease in the use of amalgam in the dental laboratories has taken place. Neither of these trends can, however, affect to any great extent the total mercury consumption.

It is possible that the use of amalgam will decrease in the future as new synthetic materials, which are hopefully also less hazardous to the environment, are developed further. Due to the ongoing installations of amalgam separators no update of Table 1 has been attempted. It is nevertheless possible to estimate that about 1 500 - 2 000 kg mercury per year is emitted to the water sewage system at the time being. The fact that, in a few years, all dental units will be provided with such separators and that a major part of the quantity of extracted teeth and lightly contaminated solid wastes will be withdrawn from ordinary domestic wastes, is in any case expected to lead to a considerable decrease of the burden on the environment of mercury released from the dental sector.

This decrease will diminish both the burden on aquatic systems downstream municipal sewage treatment plants (where, as a rule, around 40 per cent of the incoming mercury is removed) and on the atmosphere in the vicinity of municipal waste incinerator plants.

B. CREMATORIA

A total of around 50 000 cremations per year are carried out in Sweden today, in 70 crematoria (7).

It is estimated that the average mercury input is around 3 g per cremation (7). All of this mercury will presumably be emitted to the air during the cremation. The exhaust gases are not treated. The total emission of mercury from the 70 crematoria would then be around 150 kg Hg per year.

C. REFINERIES OF WASTE AMALGAM AND MERCURY

There are two refineries of waste amalgam and mercury operating today in Sweden (autumn -82). They produce between two and three tons of high grade mercury per year according to representatives of the industry. Most of the raw material for the production, is provided by the dentists who are also the main purchasers of the recovered mercury.

The emissions from the production sites are very low according to Halldin and Pettersson (1), but more recent studies (8) have shown that emissions both to the air and to aquatic systems do occur. No figures are however currently available.

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6

Translation of:

Amt fuer Gewaesserschutz und Wasserbau des Kantons Zuerich

Application of a dental treatment unit with a 70% amalgam collector

Request for limited agreement for a specific waste water elimination.

Firm Number: .../...

Address:
.....
.....
.....

Treatment unit Nr. .. (according to questionnaire for dental establishments), is equipped with a 70% amalgam collector.

Make:
Type:

Date of Installation::.....

Service through Dental Depot

Address:
.....
.....
.....

Remarks:
.....

Place:

Date:

Signature Dental Depot:

Signature Dentist/Clinic:

To obtain more documents:

Ministry of Water Safety and Water Development
Walchentor
8090 Zuerich
Tel.: 01 259 32 40

**Amt für Gewässerschutz
und Wasserbau
des Kantons Zürich**

Direktion der öffentlichen Bauten



8090 Zürich
Walcheter
Sachbearbeiter F. Schlatter
Telefon 01 259 32 40

**Anmeldung einer zahnärztlichen Behandlungseinheit
mit Amalgamabscheider 70%.**

Gesuch um befristete Zustimmung zur Art der Abwasserbeseitigung.

Betriebsnummer: .../...

Adresse:
.....
.....
.....

Die Behandlungseinheit Nr. .. (gemäss Fragebogen für Zahnarzt-
praxen), ist mit einem 70% Amalgamabscheider ausgerüstet.

Marke:
Typ:

Installationsdatum:

Wartung durch Dentaldepot

Adresse:
.....
.....
.....

Bemerkungen:
.....

Ort:
Datum:

Unterschrift Dentaldepot:

Unterschrift Zahnarzt/Klinik: Dr.med.dent A.Bräm

Hasenbühlstrasse 3
8610 Uster

Bezugsquelle für weitere Formulare:
Amt für Gewässerschutz und Wasserbau
Walcheter
8090 Zürich
Tel.: 01 259 32 40

A Dental Cloud over a Silver Filling

SUMMARY: For 150 years, silver fillings have been used for cavities. Now some dentists are urging their colleagues to stop using the mixture because it includes mercury, which they say poses health risks. While a small group of dentists have complied, the mainstream profession says the claims are unsubstantiated.

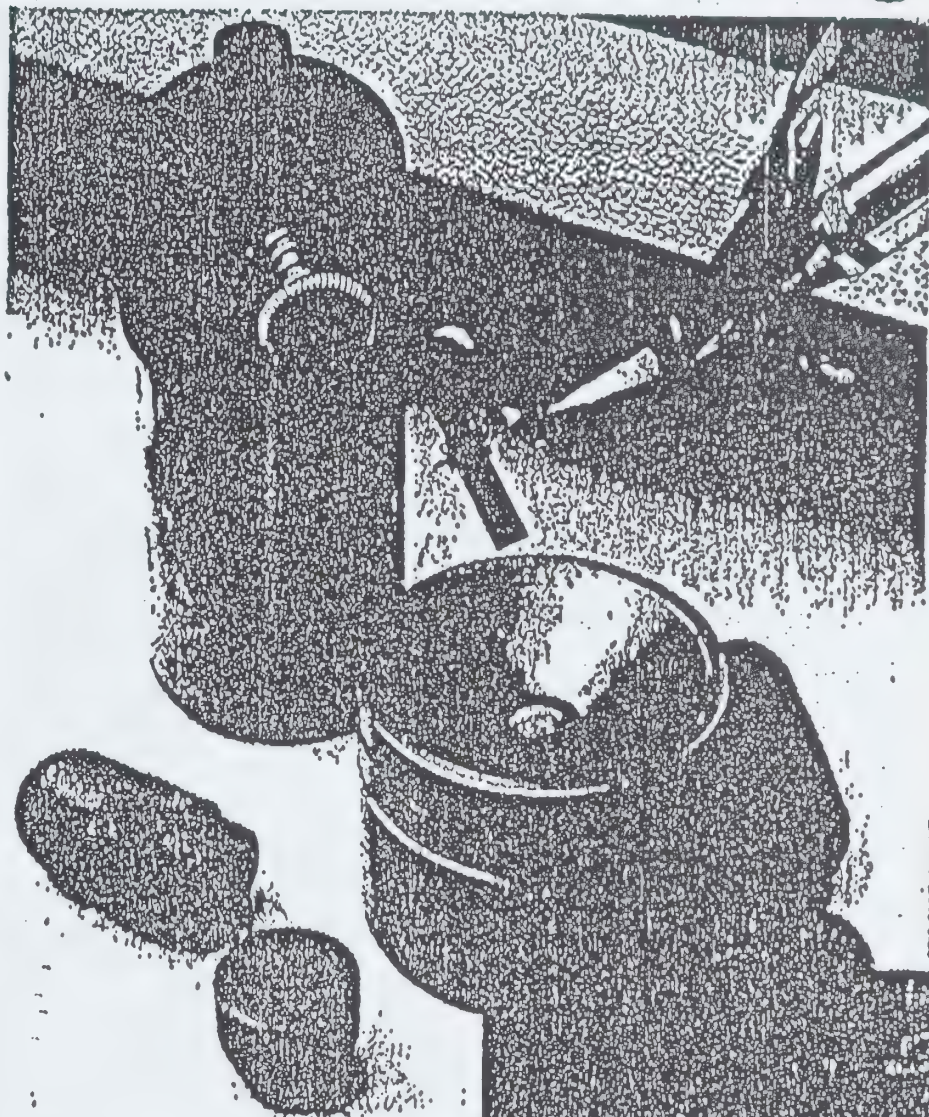
Open wide and say "change." A small but vociferous movement within the dental profession wants to do away with a staple of their craft found in the mouths of millions: silver fillings.

These fillings, or amalgams, have also contained mercury for the entire 150 years they have been used to plug cavities. Some dentists now point to this mercury as the underlying cause for conditions ranging from neurological disorders to premenstrual syndrome. The mainstream dental community dismisses the claims as unsubstantiated, but the small core of anti-amalgamists, armed with new ammunition concerning the potential health hazards of silver fillings, are on the offensive. And they appear to be strengthening their challenge to the dental bureaucracy.

The anti-amalgamists are basing their renewed push on two recent studies conducted in Canada; the results were presented at a September meeting of the International Academy of Oral Medicine and Toxicology. One study, led by Dr. Murray J. Vimy of the University of Calgary Medical School in Alberta, suggests that mercury from amalgams comes off and accumulates in tissues and that brushing teeth or chewing gum can exert enough pressure to transform solid amalgam mercury into a vapor that can be swallowed.

"Mercury is highly permeable to cell membranes and as a vapor can readily move across the lungs to the blood and to the gastrointestinal tract," says Dr. Fritz Lorscheider, professor of medical physiology at the university and coauthor of the study. "Once mercury is in the blood, it can travel to other organs."

In a separate study, also led by Vimy and published in the American Journal of Physiology, silver fillings were placed in the mouths of pregnant sheep. Three days later, the researchers said they detected mercury in the blood of the mothers and fetuses and in the amniotic fluid. Almost two weeks later, they found mercury in all tissue samples from the sheep they analyzed, and they surmise that similar mercury contamination may occur in humans.



Amalgam in the making; the substance has been a staple in dentists' offices.

Similar results observed in a different study using monkeys are to be published in October's Journal of the Federation of American Societies for Experimental Biology.

For years, dentists and researchers opposed to amalgams have tracked cases of people whose ailments cannot be linked to anything specific but who apparently recovered dramatically once their fillings were removed. These patients have formed at least a dozen Dental Amalgam Mercury Syndrome support organizations across the country to try to require dentists to inform patients of the potential dangers of silver fillings and, ultimately, to seek a ban on amalgams.

"We want it so that dentists have to tell their patients that they are putting mercury

Low levels of mercury have been measured in human breath, but it is no different than that found in the mouth after eating a tuna fish sandwich."

into their mouths," says Elizabeth Ridenour, director of a support group in North Carolina and co-organizer of a symposium last spring dedicated to the amalgam mercury issue. She says she almost died from mercury poisoning caused by amalgams after the metal was found in her blood.

Dr. Tom Truhe, codirector of the Princeton Dental Resource Center, disagrees with the push for informed consent from patients because, he says, it "tends to imply that you're telling them something is wrong, which I don't think has yet been proven

people can't relate an effect on their health now to a filling that was put in their mouth 10 years ago," says Dr. Sandra Denton, an expert on poisoning and toxicology who practices medicine in Alaska.

Officials at the Institute for Dental Research, one of the National Institutes of Health, remain decidedly pro-amalgam. "We see no reason not to use [silver fillings] unless the patient is hypersensitive to the material," says Dr. Joyce Reese, the health scientist administrator. A recent institute study found that "neither mercury nor

teeth. Composite resins of porcelain, acrylic and other materials often can suffice, but most dentists — both those who support and dislike amalgams — agree that the strength, staying power, ease of handling and relative inexpensiveness of a standard silver filling are hard to beat.

"High gold alloys are a good option and seem to be the best alternative to amalgam, but they are expensive," says Reese. She adds that the Institute for Dental Research is exploring the use of cost-effective and durable alternatives with the same properties as amalgam.

The making of an amalgam is one of the first things a dental student learns. In most cases, the materials come premeasured from a dental supply house in small sealed packets, with the mercury packaged separately from the other metals. When the dentist is ready to fill a cavity, the contents of the packets are mixed together.

The chemical reaction that occurs when the metals are combined hardens the mixture into a strong plasticlike material that is placed in the cavity. Most dentists assume, but the anti-amalgamists dispute, that once the mixture has solidified, the mercury cannot escape and is therefore not potentially dangerous, says Dr. David Kennedy, a San Diego dentist and vice president of the International Academy of Oral Medicine and Toxicology, a nonprofit research and education organization.

Leftover amalgam from new fillings and old amalgam extracted from the mouth are discarded into a trapping system designed to filter out pieces of mercury before the wastes reach the sewer system. Dentists and dental suppliers are subject to penalties under toxic waste laws if they dump more than 0.2 milligram per liter of mercury from amalgam into the environment, says Michael Petruska, a spokesman for the Environmental Protection Agency's solid waste office. Cases are infrequently reported, but several dentists' offices in the Tucson, Ariz., area were closed for violating that limit last November.

"Amalgam is a worthwhile restoration material, and I have no problem using it," says Dr. Howard S. Glazer, a dentist practicing in the Bronx, N.Y., whose sentiments echo those of most dentists. "This hullabaloo that's been created is hogwash. There are no hard rules about when and when not to use it, but when a great deal of strength is necessary, amalgam is better."

For now, anyway, the consensus among the nation's dentists is that amalgam is innocent and has yet to be proved guilty.

— Dina Van Pelt



Scan of a sheep after silver fillings shows mercury in jaw and digestive tract.

with amalgams." And while legislation has been introduced in North Carolina, Alaska and Michigan to require informed consent, he doubts the efforts will result in any major changes in the use of amalgams.

"Extremely low levels of mercury have been measured in human breath and in some fetal tissue, but it is no different than that found in the mouth after eating a tuna fish sandwich," he says. "What has been detected is not at a level which is going to harm anyone."

Also unconvinced is the American Dental Association, which represents at least 75 percent of the nation's dentists. The association is a staunch supporter of amalgam use and considers the amalgam to be a "safe, effective method of tooth restoration," says spokesman Philip Weintraub. And, he adds, the ADA's directors feel that "there is no sound scientific evidence that links amalgams to any health problems." The group acknowledges hypersensitivity to metals as an exception but claims that affects only about 1 percent of the population.

"Literally billions of fillings have been placed in 150 years, and I have seen only 50 documented cases of allergic reaction to amalgam," says Truhe. "And most of those occur either right away or within a couple of days of placement."

But the issue is the accumulation of mercury over time, say opponents. "Most

methyl mercury could be found in blood or urine samples of patients who received a maximum of eight new amalgam restorations in a one-year period. This suggests that mercury used in dental amalgams is probably safe and will not pose potential health hazards to the patient."

But, the study notes, "further research is needed." And perhaps on its own recommendation, the NIH has awarded three grants to investigate the degree of toxicity posed by amalgams. None is expected to be completed before 1992. While more dentists may jump on the bandwagon, those forgoing the use of amalgams amount to only 2 or 3 percent of America's dentists. In other countries, the opposition is considerably larger. Sweden, for example, has imposed a ban on the use of mercury in fillings by 1992. Other European nations, including West Germany and Finland, are considering similar measures, says Mats Hanson, a Swedish neurobiologist who, in cooperation with the Heavy Metals Committee of the Swedish Health and Welfare Board, was largely responsible for getting the ban passed.

The typical silver filling is a combination of metals, including silver, mercury, tin, copper and zinc. Mercury is the heavy-weight, though, constituting about 50 percent of a filling. There are options other than amalgams to fill cavities and restore

(8)



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June 30, 1991

Andreas Laqua - Laqua Dental Equipment Limited
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Hamilton, Ontario - Canada L8N 1B1

Dear Mr. Laqua:

On behalf of the Environmental Dental Association (EDA), I wish to extend my gratitude for your superb presentation on the Metasys System to members attending the "EDA Summer Symposium 1991" in San Diego. As an organization comprised of over 700 environmentally-conscious dentists and doctors, we are most appreciative of the opportunity to finally provide environmentally-responsible management of toxic waste generated from dental establishments.

We are privileged to have the first Metasys unit installed in the U.S. in an effort to promote environmental-responsibility within the dental profession. After years of searching and researching the ecological burden of inadequate water filtration, our organization is proud to be using your amalgam separator with a separation rate of at least 98.6%! In our opinion, there is no other system available that compares with this efficiency rate. Furthermore, the EDA feels strongly that any system less effective simply poses far too great a risk to our environment. When asked about the cost factor, who can question an investment in the health of our planet?

The system is remarkably simple yet highly effective. It is a must for any dental office using or disposing any amount of mercury whatsoever. Your skilled technical support has given us the assurance that there is always someone "there" if any questions arise. You are to be commended for your excellent system and fine service.

Sincerely,
ENVIRONMENTAL DENTAL ASSOCIATION

Joyal W. Taylor, DDS
President

JT: gfm

"...promoting environmentally-
conscious dentistry"



printed on recycled paper

//



PAUL G. RUBIN
DDS • PS • INC

Mr. Andreas Laqua
Laqua Dental Systems Ltd.
147 King Street East
Hamilton, Ontario
Canada L8N 1B1

June 18, 1991

Dear Mr. Laqua

Thank you for sending information on the Metasys Multi System. I think there is a great need for such a product in our profession. Unfortunately, there is not a widespread awareness of the problem of mercury contamination of the environment. Those of us who practice "mercury-free" dentistry, that is, do not use amalgam in our practices, are much more likely to be interested in this product.

The dentists in our IAOMT group are committed to toxic-free dentistry, as much as is possible. The academy, formed in 1984, is dedicated to education and promotion of research regarding toxins in dentistry. We have primarily focused on the mercury issue. Our annual meeting in September in Seattle brings together some of the top researchers in this field, presenting a two day program on the scientific concerns and current research on dental toxins and health. I've enclosed a list of our speakers. We are inviting a limited number of commercial exhibitors for the meeting, and I thought your company would be ideal. Please see the enclosed letter and let me know as soon as possible if you are interested.

Also, I had a few other questions. What is the cost of the Metasys? Is it sold direct or through dental suppliers? Does it require professional installation (by whom?), or can the dentist install it himself? Being designed in Europe, are there any problems with USA type and size of hoses and fittings?

Thanks!

Sincerely,

A handwritten signature in dark ink, appearing to read 'Paul G. Rubin', followed by a stylized monogram or set of initials.

206 • 328-0221

101 14th Ave E. • Seattle • WA 98112

P O Box 20039 • Seattle • WA 98102

The Premier
of Ontario

Le Premier ministre
de l'Ontario

Legislative Building
Queen's Park
Toronto, Ontario
M7A 1A1

Hôtel du gouvernement
Queen's Park
Toronto (Ontario)
M7A 1A1

March 22, 1991

Mr. Andreas Laqua
Laqua Dental Equipment
Limited
147 King Street East
Hamilton, Ontario
L8N 1B1

Dear Mr. Laqua:

Thank you for your letter of February 15, 1991, about
pollution control in dentistry.

My colleagues and I are committed to fighting many
different kinds of pollution, and are concerned about the
health of our citizens. You have raised some interesting
points and suggestions. I have sent a copy of your letter
to Ruth Grier, Minister of the Environment, and to Evelyn
Gigantes, Minister of Health, for their consideration of
your comments. They may wish to respond further.

I appreciate receiving this information.

Yours sincerely,



Bob Rae

cc: Honourable Ruth Grier
Minister of the Environment

Honourable Evelyn Gigantes
Minister of Health

//

Minister of the Environment



Ministre de l'Environnement

JUN - 4 1991

Mr. Andreas Laqua
President
Laqua Dental Equipment Limited
147 King Street East
Hamilton, Ontario
L8N 1B1

Dear Mr. Laqua:

Thank you for your letter of March 27, in which you enquire whether the federal government intends to introduce environmental legislation for the dental industry.

The provinces are responsible for matters related to the disposal of amalgam from dentists' offices. I have enclosed, for your reference, a list of contact persons who will be able to inform you of any specific provincial measures that might be in place.

In addition, the Canadian Dental Association has information on amalgams and is preparing a manual on waste management practices. If you would like details, you can write to the Association at 1815 Alta Vista Drive, Ottawa, Ontario, K1G 3Y6; or telephone (613) 523-1770.

I trust that the foregoing is useful.

Yours sincerely,

Jean J. Charest

Enclosure

12

Translation of
Quecksilberemissionen aus Zahnarztpraxen

Amalgam group 14. 11. 86
Professor Rotgans 01. 12. 86

Klaus Bosse
Umweltbundesamt
Bismarkplatz 1
1000 Berlin 33

Mercury Emissions Generated In Dental Establishments

Klaus Bosse
Federal Ministry of the Environment
Bismarkplatz 1
1000 Berlin 33

Mercury Emissions Generated In Dental Establishments

A. Preface

Mercury is known as a extremely toxic element. Nowadays Mercury is found in all water treatment facilities in Hessia. One source could be the dental office. The Federal Ministry of the Environment lists the consumption of amalgam in dental medicine as 26 tonnes per year. The common amalgam contains 50% Hg, 30% Ag, and 20% Sn. The project was initiated by studies in Sweden and in Hessia, where up to 1.5 kg of amalgam from one dental office was discharged into the sewer system.

The following aspects should be addressed during this project:

1. Establishing the amount of waste water and amalgam, looking at all amalgam contaminated drains in dental offices.
2. To substantiate the Swedish test methods by means of real findings.
3. Developing a test method to determine the efficiency of amalgam collectors.
4. Establishing a skeleton agreement for dental operations.
5. Looking into the feasibility to meet the limit of 0.05 mg/l with respect to available technology.

6. Test comparing the suitability of available amalgam collectors in accordance with above skeleton agreement.
7. Guide-line to control and maintain the devices.
8. Development of a suitable waste management program for the collected amalgam waste.

The double effect of waste reduction and re-collect raw materials is of utmost importance to this project.

B. Results

During this project the following results were obtained for each aspect.

1. Establishing the amount of waste water and amalgam, looking at all amalgam contaminated drains in dental offices.

In Hëssia and North Rhein- Westfalia a total of 17 dental offices were selected for the investigation.

The criteria for selecting a dental office

- different makes of treatment units were present,
- water samples could be taken immediately after the treatment unit - without mixing with other (local waste water),
- the waste water of one day could be collected and
- different kinds and methods of treatments were available.

Before starting to take samples, all existing traps (sieves, filters etc) were emptied to reduce to a minimum the effects of the device type on the treatment unit. After the samples were taken, all traps were emptied again and the contents were added to the samples.

Representative mix-samples were taken from different samples collected during one day's operation and after homogenizing, were analysed for

- viscosity
- amount of settled substances
- determining the size of the particles and
- amount of Chrome, Cobalt and Nickel

For each particle size fraction

Fraction I: larger than 0.5 mm

Fraction II: 0.1 mm to 0.5 mm

Fraction III: 0.025 mm to 0.1 mm

Fraction IV: smaller than 0.025 mm

the contents of Mercury and Silver were established.

The waste water per dental office amounted to between 8.5 and 63 liter per day. This amount depends proportional on the number of patients (10 - 20). These numbers do not apply to offices which use water-ring-pumps or water-jet-pumps for their suction system. Here the amount of water measured was 20 liter in 5 minutes.

The amount of Mercury per day fluctuated between 40 mg and 20.080 mg. The arithmetic average is 3.800 mg of Hg per day. On the basis of this factor and assuming that a dentists works only 4 days a week full time, the total freight is calculated by

$$\begin{aligned} & 3.8 \text{ g/d} \times 4 \text{ d/week} \times 48 \text{ weeks/y} \\ & = 729.6 \text{ g/y per treatment unit.} \end{aligned}$$

As each dentist has in general two treatment units, this means a total freight between 1-1.5 kg/y per dental office.

In conclusion it is pointed out that the established amounts do correspond with the real conditions at the site where the samples were taken. To avoid interfering with the daily routine while taking the samples, it was impossible to clean all drains and hoses before and after taking the samples to establish the real amounts. Nevertheless it can be considered as a fact that the established amounts do picture the real condition, as over time, due to sedimentation, a stream-technical favourable profile has developed in the pipes and hose connections.

2. To substantiate the Swedish test methods by means of real findings.

In Sweden, back in 1978, the amount of waste water in five dental offices without installed retrieval systems were established. The collected substances were analysed with regard to particle size.

In average the following sizes were established:

Fraction I:	larger than 0.5 mm	: 54.5%
Fraction II:	0.1 mm to 0.5 mm	: 37.6%
Fraction III:	0.025 mm to 0.1 mm	: 6.9%
Fraction IV:	0.010 mm to 0.025 mm:	1.0%

Although these test results were available already in 1978, the selection of particle size for the standard sample of 10.0 g to establish the "Standard test of Collection Regulations for Mercury containing waste generated in dental establishments" were:

Fraction I: (2.0 mm to 1.0 mm) : 5.0 g = 50%
Fraction II: (1.0 mm to 0.35 mm) : 2.5 g = 25%
Fraction III: (0.35 mm to 0.044 mm) : 1.5 g = 15%
Fraction IV: (0.044 mm to 0.020 mm) : 1.0 g = 10%

During a discussion with the National Swedish Environmental Protection Board in Stockholm on November 27. 1984, it could not be explained why for the standard test a size selection, different from the test results, were granted.

A comparison between the samples taken in one day and the Swedish standard test shows no conformity. In contrast to the Swedish standard test, the majority of particles are found to be smaller than 0.1 mm.

As the size of the particles effects greatly the efficiency of presently used mechanical collecting methods of a collecting device, the efficiency with the day samples is drastically reduced compared with the Swedish standard test.

Therefore a new test method had to be developed.

3. Developing a test method to determine the efficiency of amalgam collectors.

To establish a test method, the effects of the parameter

- size of particle,
- speed of incoming water
- load and
- viscosity of carrier medium

was studied with respect to the efficiency of amalgam collectors.

The separation is accomplished by presently available devices according to the centrifuge principle or sedimentation/filtration.

Effect of particle size

The size of the particle effects greatly the centrifuge separation and the sedimentation. The larger the particles are, the better the devices work.

Effect of speed of incoming water

Especially with a sedimentation device the efficiency depends greatly upon the speed of water flushing through the system. This can also be explained, as particles which would settle with a lesser speed are flushed away with water coming in with a high speed.

Effect of load

The effect of the load is negligible with the sedimentation device, as the sedimentation speed to settle depends only on the viscosity of the carrier and the particle size.

Effect of viscosity of carrier medium

During the analysis of the samples, taken from dental offices, viscosity data were obtained, which varied only minimal from the viscosity data of the carrier medium (water) used during the tests. As it is not likely that, while using an amalgam collector, the viscosity will be much different, the effect of the efficiency due to a different viscosity was not investigated any further.

Selection of a tensid

The use of a tensid is necessary to bedew the amalgam. If not bedewed, the amalgam will clot or it will form a fine layer at the surface. A reproducible measurement is not possible in this condition.

Test method

Taking into consideration the above mentioned test results, a text for a standardized test method was drafted in close co-operation with Professor Rotgans, University Tuebingen and graduate engineer Stumpf from the Technical Testing Association in Essen (see encl 3). The method described therein to manufacture sample material (amalgam) was developed by Professor Rotgans.

4. Establishing a skeleton agreement for dental office operations.

The skeleton agreement contains general demands, for example place of installation, amount of waste water, used material, accessibility to take samples, control signals and special installation instructions for amalgam collectors.

Not listed are the of waste water sources, which have to be connected to an amalgam collector. In principle, besides the waste water of the treatment units, also the waste water originating from the hand basin in the office should be connected to an amalgam collector. The cleaning of amalgam contaminated devices in the basin will contaminate the waste water.

A general demand, to let the waste water from the hand basin flow through an amalgam collector, would mean for most establishments the installation of a separate amalgam collector at the basin. Considering the consequences, thought should be given, specially for existing installations, to regulate alternatively by means of administrative rules, the cleaning of amalgam contaminated devices in a dish sink to eliminate the problem of how to collect the amalgam from the hand basin.

5. Looking into the feasibility to meet the limit of 0.05 mg/l with respect to available technology.

As the reference point is defined differently, the measured concentration depends mainly on the amount of water, which varies greatly from location to location, behind the treatment unit, at the border of the office or at the point of connecting into the community sewer system.

Even a common reference point directly behind the treatment unit is questionable, because the flow and amount of water depends on the system and varies between a some liter and a few cubic meters per day.

Moreover it should be mentioned that it is not feasible to control the limits. The thought to take samples from ca. 30.000 dental offices a few times a year seems, considering the needed man power, utopian.

The amount of amalgam produced varies tremendously over time and that would make it necessary to take a day's sample.

It is not possible to take a representative sample with respect to amount and time, because it is not guaranteed that all dentists will be treated the same. During the period of taking the samples it was noticed that in one office amalgam fillings were removed in one patient after another which automatically would result in a very high Mercury content in the waste water, whereas in another office only extractions, prosthetic and medical treatment was given without the disposal of amalgam and Mercury into the waste water.

Due to above explanations it is established, that the limit for Mercury of 0.05 mg/l as per regulations can not be applied to dental offices nor dental clinics. It can only be applied to industry and trade.

On the other hand for dental establishments and dental clinics the following regulations are suggested.

1. Beginning with 1988 all newly established dental offices and dental clinics must be equipped with certified amalgam collectors. This regulation is also applicable to re-designed single treatment units within an office and clinic which are equipped with several treatment units.

2. Existing dental establishments as well as dental clinics must install certified amalgam collectors on all treatment units by 31. 12. 1989 at the latest.

This suggestion is modelled on guide lines, which were made mandatory in Sweden. This regulation was, suggested by Sweden, adopted by the Helsinki Commission of the BALTIC MARINE ENVIRONMENT - PROTECTION COMMISSION.

6. Test comparing the suitability of available amalgam collectors in accordance with above skeleton agreement.

Up until the dead line nine amalgam collectors were submitted for testing of their efficiency. Those are products of six different companies. For determining the efficiency of these devices, the under point 3. mentioned testing method was used. The standard curve has to be considered as temporary, because the available data were few. The final curve should be based upon a better statistic.

For the testing standard mixtures, produced by the University of Tuebingen in co-operation with the University of Stuttgart, were used. The samples were numbered in order being used. The corresponding numbers are found in the testing protocols.

I point out that with respect to the efficiency there does exist an uncertainty, because pure tap water was used as a carrier during the testing. In reality the contamination of the water through cotton balls, dust as well as organic substances could possibly reduce the efficiency.

The established figures show a broad spectrum between 54.9% and 96.3%. Let it be mentioned that those figures were derived from new devices. At the present time, with respect to the efficiency over a longer period of time, no evaluation is possible. To establish these figures, more testing would be necessary after the units were in use for a longer period of time.

7. Guide-line to control and maintain the devices.

The goal of the guide line is to lay out

- what specifications in the manual with respect to maintenance and time periods are expected
- what is demanded with respect to handling of the collected amalgam

1. Maintenance and control

The intervals and the extent of the maintenance are to be defined by the manufacturer in a way that the devices are kept functional.

a) Dynamic collectors

Dynamic collectors are devices which are powered mechanically or electrically. Usually they use the principle of a centrifuge.

b) Static collectors

Static collectors use the principle of sedimentation or filtration.

2. Demands with respect to handling of the collected amalgam

The collector should be designed in a way that the collected amalgam sludge can be safely and easily removed.

8. Development of a suitable waste management program for the collected amalgam waste.

The amalgam waste in amalgam collectors can only be managed through a comprehensive waste management system for all kind of waste, which are generated in the dental office.

The following wastes are generated in the dental praxis:

X-rays

Solutions used for x-ray development

Teeth with amalgam fillings

Amalgam residues from amalgam collectors

Used sieves with amalgam residues

Amalgam left overs

Used needles and cannulas

Medicine and their left overs

Old x-ray films, lead foils

As the proper waste management of these residues is difficult for the dentists to handle due to time involved and required licencing, it is suggested that the dental associations enter into a skeleton agreement with waste management companies to manage the waste in dental offices. The dentist can join these agreements.

For each waste special waste management is set forth.

The demands for waste management companies as well as administrative regulations will be disclosed in detail.

The cost involved to manage the waste can only be estimated, as the cost for collection and transportation depend on local circumstances and do effect the total amount.

Conservatively estimated the cost involved are ca. 40
- 50 DM per dental office per month.

C. Future

It is expected that every dental office generates the amount of 1 kg to 1.5 kg of Mercury per year, which accumulates in undissolved form in amalgam residues. By developing a test method to determine the efficiency of amalgam collectors, a basis was created to have all existing and future amalgam collectors examined according to standard with regard to efficiency.

By testing nine devices during the project, as well as three other devices separately with efficiency ratings from 86.1 % to 92.1 %, I suggest to licence for installation only amalgam collectors with a rating of more than 90%. They also should have a licence with respect to design.

at least 95%! (correction Mr. Bosse)

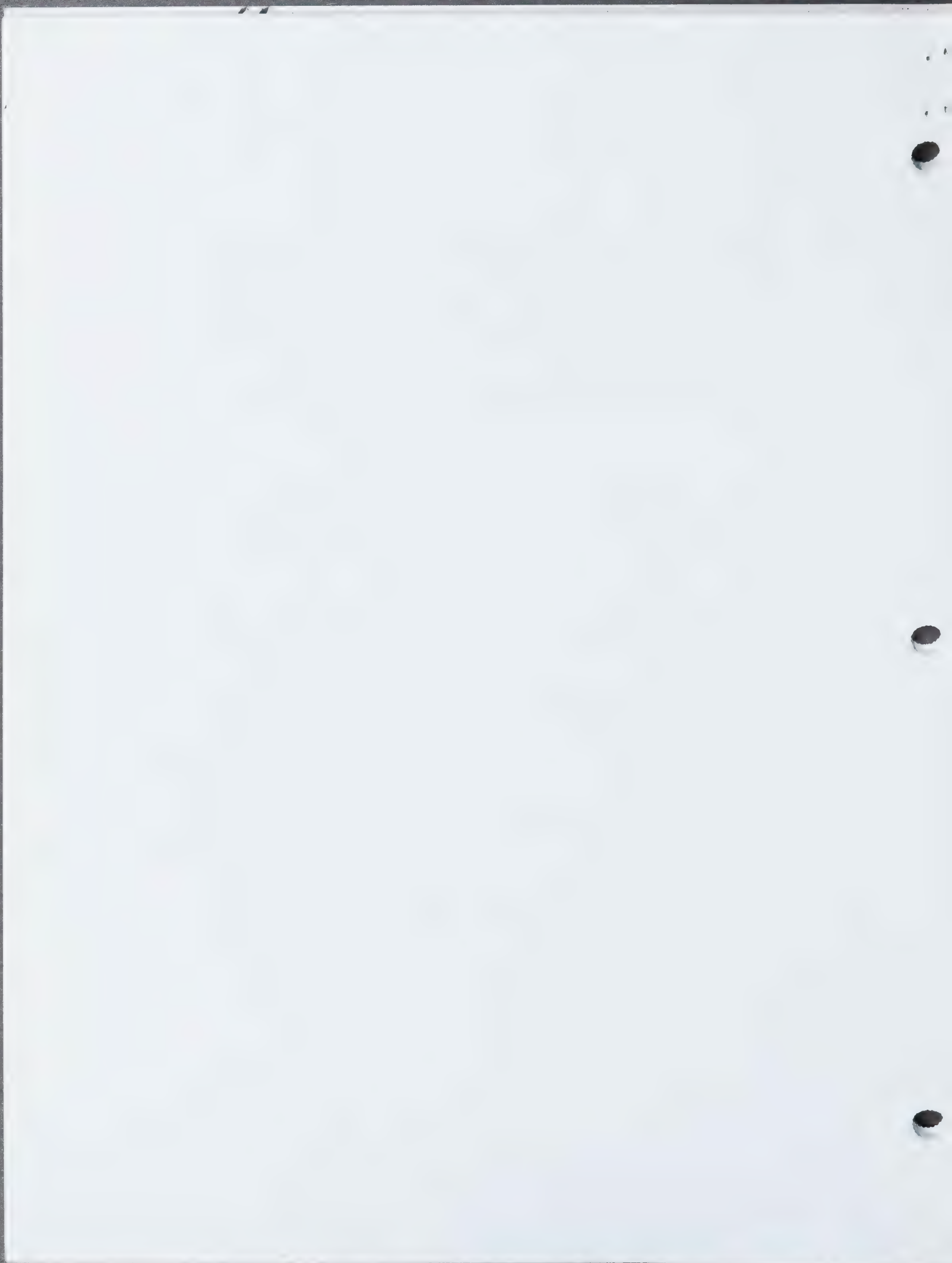
To allow enough preparation time for the dentists and the manufacturers to adjust their products, I suggest the following regulation:

- 95% - Beginning January 01, 1988 all newly designed dental offices and dental clinics have to be equipped with licenced amalgam collectors. They must have a rating of at least 90% at a water flow of at least 6 l/min according to the established test method. The testing protocol has to be presented.
- Existing dental offices and dental clinics must install an equivalent amalgam collector by December 31, 1989.
- The removal or cleaning of amalgam contaminated trap systems (sieves, filters etc.) of the unit in the hand basin or toilet is prohibited once amalgam collectors are installed. This procedure is permitted only in the spittoon of the unit.

By realizing these suggestions the following relief for environment and industry is accomplished::

1. Relief of water treatment facilities in the Federal Republic of Germany by retrieving of at least 28.5 tonnes of Mercury per year (at 28.500 dental offices).
2. Eventually better chances to use the sludge from the water treatment facilities by reducing Mercury and other heavy metals.
3. By retrieving Mercury and Silver preservation of natural resources.

Originally it was assumed that the Mercury in dental offices was only generated in undissolved form. In connection with the project it was discovered at a few samples that the Mercury and other heavy metals were present in dissolved form. Therefore it is aimed to investigate this phenomenon in more detail in a final examination, in particular with respect to certain dental procedures (polishing of old amalgam fillings) and the use of certain dental instruments (turbine, drills, disinfectants).



*Address,**See Recommendation #2, Page 19**Joyal Taylor, DDS*

NATIONAL INSTITUTES OF HEALTH

TECHNOLOGY ASSESSMENT CONFERENCE STATEMENT

EFFECTS AND SIDE EFFECTS OF DENTAL RESTORATIVE MATERIALSAUGUST 26-28, 1991INTRODUCTION

The incidence of tooth decay has been declining steadily among American children in recent years, but there remains a substantial demand in this country for dental restorative materials. More than 200 million restorations are placed each year.

The most commonly used dental restorative material is silver-mercury amalgam, followed by tooth-colored plastic composite materials, various cements, alloys of gold ^{base metals} and porcelain and other ceramics. Selection of the most appropriate material depends on the extent of the cavity or defect in the tooth, the condition of the mouth, whether the restoration will be visible, and cost factors. The ^{effectiveness} efficacy of currently used materials in restoring tooth function is well established, especially for amalgams, casting alloys, ceramics composites, and glass ionomers.

Once placed, dental restorative materials are in ^{constant} contact with living tissues. Although they are made as strong and inert as possible, fillings may deteriorate or break, and minute amounts of component substances may be released into the mouth.

CONCLUSIONS AND RECOMMENDATIONSConclusions

Current dental restorative materials are effective for restoring teeth for functional or esthetic reasons. Virtually all restorative materials have components with potential health risks. However, there is no scientific evidence that currently used restorative materials cause significant side effects. Available data do not justify discontinuing the use of any currently available dental restorative materials or recommending their replacement.

Although mercury vapor is released from dental amalgam, the quantities released are very small and do not cause verifiable adverse effects on human beings.

Recommendations

1. Manufacturers of all restorative materials should provide an insert or "stickers" listing the constituents of each material. This information should be referenced in each patient's chart.
2. Dentists should install devices to recover waste amalgam residues in their offices for recycling to reduce environmental contamination.
3. A specific Food and Drug Administration program should be established for reporting and investigating adverse reactions to dental restorative materials.



Ontario

Ministry
of the
Environment

Ministère
de
l'Environnement

135 St. Clair Avenue West
Suite 100
Toronto, Ontario
M4V 1P5

135, avenue St. Clair ouest
Bureau 100
Toronto (Ontario)
M4V 1P5

WATER RESOURCES BRANCH

August 29, 1991

Laqua Dental Equipment Limited
147 King Street East,
Hamilton, Ontario
L8N 1B1

Attention: Mr A. Laqua

Dear Mr. Laqua:

Thank you for your letter dated February 22, 1991.

Currently in Ontario, municipalities control discharges to sewer systems with a sewer use by-law which has established concentration based limits for various pollutants including Mercury. Numerous municipalities in Ontario have adopted the recent Ministry of Environment 1988 Model Sewer Use By-Law which is a much improved version of the previous 1975 By-Law.

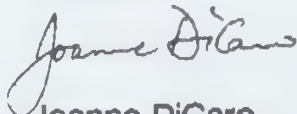
Future revisions of the Model Sewer Use By-Law will play an important role as the principle control instrument in the Ministry of Environment's proposed MISA Sewer Use Control Program. This program aims to regulate toxins being discharged to municipal sewer systems from both the industrial and commercial sectors. Under the MISA Sewer Use Program there will be 23 industrial sectors for which it is proposed discharge regulations will be promulgated. The dental/medical laboratories may be regulated within one of these 23 sectors. As a result, dental laboratories would be required to comply with all appropriate sewer use by-law requirements and/or provincial limits. However, the possibility exists for dental laboratories to be regulated based on loading limits, or perhaps be required to implement a Best Management Practice plan (BMP plan). A BMP plan, in simplistic terms, is a means of preventing or reducing contaminants from reaching the sewer system by carrying out actions as deemed appropriate by a municipality including, such actions as proper housekeeping, chemical storage and employee training. It should be noted that BMP plans may include treatment technology specifications.

The Ministry of Environment maintains great interest in any new pretreatment technologies within industrial and commercial sectors. We would be grateful if your company would forward this office an information package on how the METASYS equipment operates.

For your interest, I have enclosed a copy of the 1988 Ministry of Environment Model Sewer Use By-Law.

If you have any questions, you may contact the undersigned at (416) 323-4861.

Sincerely,



Joanne DiCaro
Project Officer
MISA Sewer Use

cc: Brian LeClair

Is anyone home at the Hamilton office of the Ministry of Environment?

3e

COUNCIL REPORT

Brian Hinkley, Ward 3



There are times when frustration builds to the boiling point that I feel like climbing the highest peak and letting loose the loudest, longest holler ever heard on the face of the earth.

I have reached that point with the lethargic, bureaucratic, mumble-jumble, laid-back indifference of the Hamilton office of the Ontario Ministry of the Environment (M.O.E.).

Is not the M.O.E. supposed to protect people and the environment? Or is it all a facade built on regulations, procedures, due process, legalese, technical reports, blah! blah! blah!

I have three stories. One is simple, one has a long history and the other is infuriating.

Number one. There is a large pile of dirt, (perhaps 1,600 tons) behind the Sears store in the north-east corner of the Centre Mall parking lot. This dirt has apparently been there since November 1990. It is apparently contaminated. It is fenced-off. Why in the world would anyone

be allowed to store 1,600 tons of dirt on a parking lot?

On June 11, I wrote the M.O.E. about this dirt. No answer yet.

Number two story. Last winter a constituent informed me of an environmental disaster. I called the ministry. An inspector from the M.O.E. and I visited an industrial plant located near the harbor. With an inspector in tow, I was able to gain entry to the private lands. It was a horror story. Oily, black coal tar was oozing from the ground, only a nine-iron shot from Hamilton Harbour.

The M.O.E.? Oh, they've known about this problem since 1985.

Nineteen Eighty-Five!! Give me a break!

There is more to this incredible story, but I'll spare you the details, except for one. You know, virtually everywhere in this city liquid and water flows toward the harbor. Not here folks. Would you believe the ex-

perts say this underground black muck flows away from the harbor? Oh yeah? If you believe this, I have a story to tell you about the flying elephant.

Number three story, and I can't stand to tell you anymore. I am too angry.

On Sunday, July 14, I spent two hours with a well informed resident of Haldimand-Norfolk region. What I was shown is a blatant misuse of farmland. Major violations of the Environmental Protection Act.

We drove around farmland in Hamilton-Wentworth and Haldimand-Norfolk. At one location after another I was shown evidence of buried rubble, scrap, construction, debris and other unknown wastes. It made me sick. What a travesty!

Here it is folks. The latest scam aimed at further destruction of our environment. Unauthorized landfill sites (dumps).

Here is how it works. Buy up farms cheap. Bid on demolition jobs and undercut the competition by avoiding waste disposal fees. Waste under law is supposed to be safely and properly disposed with licensed firms but, instead, it is being buried under our farmlands. Why? Greed by

See WHERE/page 9

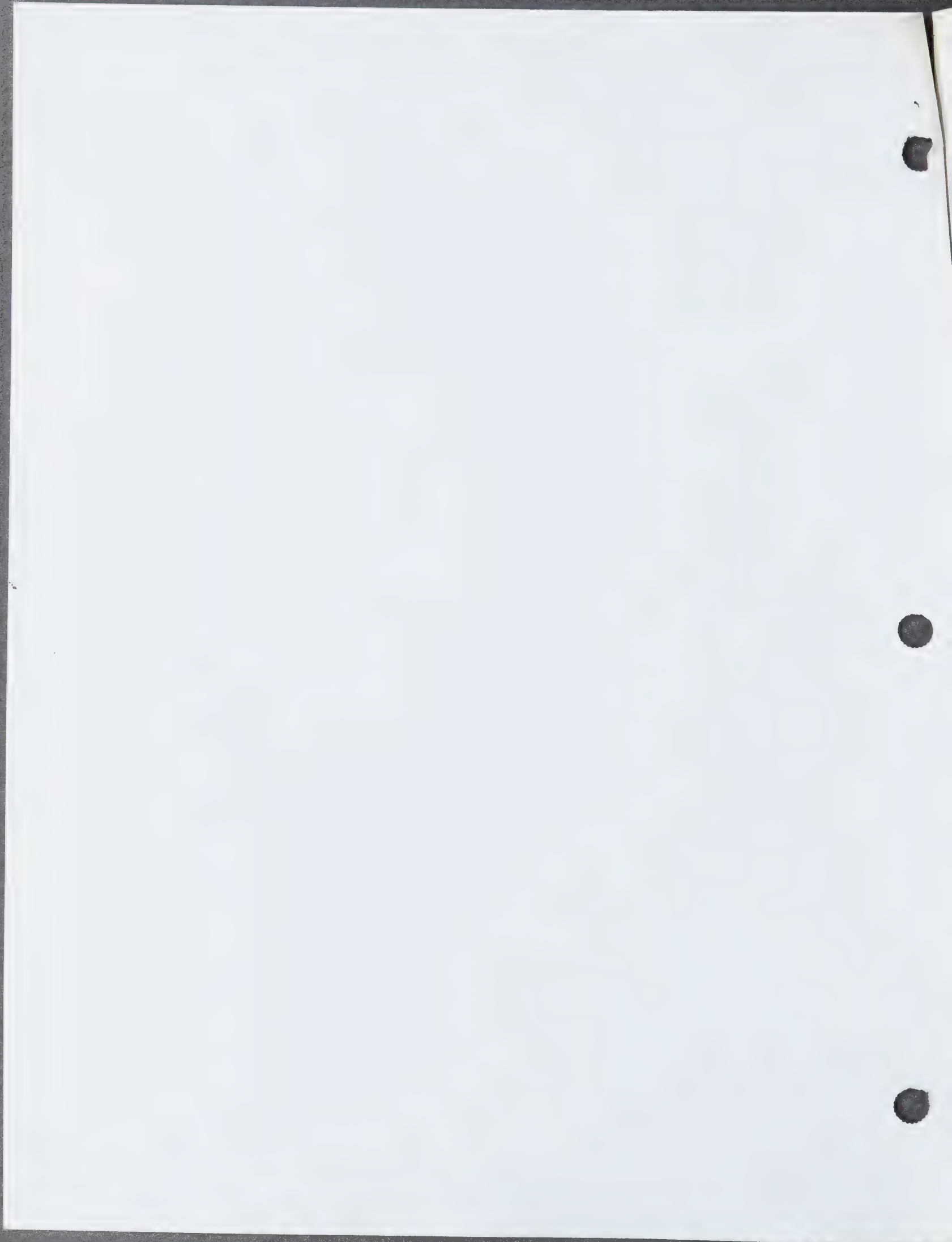
Where is the MOE?

Continued from Page 7
certain money-grubbing operators.

Now the kicker. The M.O.E. knows this is taking place. Residents have followed trucks, taken pictures and witnessed the dumping. Still, it continues.

You wonder why people get angry and distrust governments. It's no wonder to me! What is a wonder is why private citizens have to spend so much time doing the job for which they have paid taxes. Where is the M.O.E.?

Does anyone want to join me on the tallest peak for a loud scream? Maybe, just maybe, we will be heard.



URBAN/MUNICIPAL
CA3 ON HW A25
A35 E

**CHAIRMAN'S ADVISORY COMMITTEE
ON ENVIRONMENTAL ISSUES**

A G E N D A

DATE: Thursday, October 10, 1991
TIME: 8:30 o'clock a.m.
PLACE: Committee Room, 15th Floor
Regional Offices

1. GENERAL

- a) **Declaration of Interest** re: Municipal Conflict of Interest Act
- b) **Minutes** of the Chairman's Advisory Committee on Environmental Issues
Committee Meeting - September 12, 1991

2. BUSINESS ITEMS

- 2.1 **Correspondence dated September 8, 1991, from B. McHattie, regarding his resignation from the committee.**

For the consideration of the committee.

- 2.2 **The Use and Control of Pesticides in the Regional Municipality of Hamilton-Wentworth**

- a) That the Regional Health Department of Hamilton-Wentworth investigate and report back to the Chairman's Advisory Committee on Environmental Issues within two months with the following information:
 - i) The extent of public and private use of pesticides in Hamilton-Wentworth
 - ii) The potential negative effects on the health of humans and animals

- iii) Recommendations on how pesticide use can be reduced, including by the Region itself
 - iv) Approaches to this issue taken by other municipalities and regions in Ontario
- b) That the input of the Ontario Ministry of the Environment and other agencies responsible for pesticide related matters should be sought.
- 2.3 **Correspondence received from D. McLean - Response of the Natural Areas Sub-Committee: Geomatics International 1991**

For the consideration of the committee.
- 2.4 **Correspondence received from M. Harvey Laqua - re: Dental Office Waste Stream - Executive Summary**

For the consideration of the committee.
- 2.5 **Correspondence received from D. McLean - Natural Areas Sub-Committee, respecting ESA Sensitivity Study to the following individuals:
B. Vanderbrug - Royal Botanical Gardens, J. Vogt - Ministry of the Environment, D. Turvey - Commissioner of Transportation/Environmental Services, J. Thoms - Commissioner of Planning, P. Rice - Royal Botanical Gardens**

For the information of the committee.

Note: This item was tabled at the September 12, 1991 meeting.

3. For the Information of the Committee

That the following items be received:

- a) Seminar - Municipalities and the Environment: Truth and Consequences, Friday, October 18, 1991, Toronto
- b) Information Brochure released from the Ministry of the Environment, re: The Advisory Committee on Environmental Standards and Public Review of New Drinking Water Guideline for NDMA

**Chairman's Advisory Committee
On Environmental Issues**

Agenda

October 10, 1991

- c) Correspondence dated September 26, 1991, from Philips Planning and Engineering Ltd., re: Class Environmental Assessment - Ancaster Creek - Flood and Erosion Control Project

4. OUTSTANDING BUSINESS

Date	Subject	Referred to:
June 14, 1990	Energy Conservation Lights - Office Tower Item 2.3 i)	Sub-Committee on Energy
June 14, 1990	Resolution - County of Wellington, re: Use of Tire Derived Fuel Item 2.6	Sub-Committee on Air Pollution
August 9, 1990	Spraying of Pesticides Item 2.1	Sub-Committee on Natural Areas
September 13, 1990	Correspondence - Amstel Brewery - Recyclable Beer Bottles	Paul Muldoon
June 14, 1991	Underground storage tanks	Tabled pending staff investigation on previous Council directives on underground storage tanks.
	Carbo-Chem	Strathearne Avenue, Westside - What is the M.O.E. doing to prevent underground flow and seepage into Hamilton Bay
	Scrap Yards Throughout the Region	Pollution - contaminants in soil

5. ADJOURNMENT

1b

MINUTES OF THE CHAIRMAN'S ADVISORY COMMITTEE ON ENVIRONMENTAL ISSUES

The Chairman's Advisory Committee on Environmental Issues met at 8:30 a.m., on Thursday, September 12, 1991 in the Committee Room, Regional Offices.

Present: Chairman (Councillor) J. Prentice
Councillors B. Hinkley, G. Copps,
R. Baetz, G. Birchall, C. Katz, J. Coates
Prof. K. Murphy, B. Pedder, D. McLean

Absent: Councillor H. Merling
P. Muldoon, B. Thompson

Also Present: R. Stewart, B. Pearce, J. Halliday, P. King, V. Terluk, G. Ostofi,
Mitchell Gibbs - Federal Environmental Services, K. Pidsadny

1. GENERAL

- a) Declaration of Interest re: Municipal Conflict of Interest Act (None)
- b) Minutes of the Chairman's Advisory Committee on Environmental Issues Committee Meeting - July 11, 1991 (Copps/Coates) be received and adopted as presented. **CARRIED**

2. BUSINESS ITEMS

2.1 Marketing Blue Bags for Recycling in Hamilton-Wentworth

(Baetz/Murphy)

- a) That the report "Marketing Blue Bags for Recycling in Hamilton-Wentworth", be received for information; **CARRIED**

(Copps/Baetz)

- b) That the Chairman's Advisory Committee on Environmental Issues does not endorse the concept and use of translucent blue bags as a substitute for the Blue Box without further study highlighting both the advantages and disadvantages of this waste management initiative. **CARRIED**

3. d) Correspondence dated August 14, 1991, from Andreas Laqua, Laqua Dental Equipment Ltd., respecting pollution in the dental industry

(Murphy/Copps)

- a) That correspondence be forwarded to the Hamilton Dental Association inviting them to committee, and addressing the concerns of mercury and amalgam dental waste respecting State of the Art technology and percentage of wastes collected;
- b) That correspondence be forwarded to the Ministry of the Environment addressing the above concerns. **CARRIED**

Note: Mr. Andreas Laqua addressed committee members.

2.2 Composting Facilities, Slide Presentation

Councillor Hinkley made a presentation to committee members on his recent trip to composting facilities in Europe. The following concepts were stressed regarding the facility.

- a) That an image be portrayed that this is a high-quality producing compost facility;
- b) That the facility be aesthetically pleasing with good vegetation on and surrounding the grounds;
- c) That tours of the facility by a public relations official, along with a representative of the firm who built the facility, be made available to promote this technology;
- d) That the tender contracts highlight that Hamilton-Wentworth become the base for steel fabricators. We encourage the company to use our facility as a demonstrator for steel fabricators;
- e) That the Region consider inviting Mr. Hubert Hausle, from Hausle Konsequent, of Okologisch, Europe, to review and critique the plans for the Region's composting facility;

- f) That a manager be hired to manage the operation of the facility and to seek out other markets to improve composting.

(Copps/Murphy)

That this report be received for information.

CARRIED

Professor Murphy requested that the results of any test (on composting) in the past, be included in the presentation of the compost facility.

3. e) News Clipping from the East Hamilton Journal dated Wednesday, July 24, 1991, from Councillor B. Hinkley, re: "Is Anyone Home at the Hamilton Office of the Ministry of the Environment?"

Councillor Hinkley, and Mr. Hubert from Haldimand-Norfolk advised members of their concern of illegal dumping of waste materials.

Under Regulation 309, from the Ministry of the Environment, there are registered land fill sites based on the 1985/86 legislation. Mr. Hubert had concerns that there may be companies illegally dumping waste in areas that are not registered under Regulation 309.

(Hinkley/Katz)

- a) That Regional staff report back to committee to ensure that Regional contracts provide for a control measure that any firm who is awarded a Regional contract disposes of the waste material in accordance with the Ministry of the Environment Regulation 309;
- b) That the area municipalities be requested to ensure a control measure is in place which would guarantee that before building or demolition permits are issued, that contractors are not violating Ministry of the Environment Regulation 309;
- c) That staff review and comment on the Ministry of the Environment Regulation 309.

CARRIED

New Business No. 1

Presentation - Sewage Treatment Plant - Removal of TKN from the Sewage Treatment Plant.

Mr. Phil King from the Sewage Treatment Plant made a presentation to members on the removal of TKN (nitrogen and ammonia) from the Sewage Treatment Plant.

Mr. King advised that the Ministry of the Environment has no official ruling on the removal of the TKN from the system. The Sewage Treatment Plant does address the issue of removal of TKN and is continually extracting amounts to a lower level.

(Copps/MacLean)

That this be received as information.

CARRIED

3. For the Information of the Committee:

- a) Correspondence from Mr. Don McLean, Vice-Chairman, Natural Areas Subcommittee, respecting ESA Sensitivity Study to the following individuals: B. Vanderbrug - Royal Botanical Gardens, J. Vogt - Ministry of the Environment, D. Turvey - Commissioner of Transportation/Environmental Services, J. Thoms - Commissioner of Planning, P. Rice - Royal Botanical Gardens

(McLean/Baetz)

That this item and the response as provided by staff be tabled to the October meeting.

CARRIED

- b) Correspondence dated August 22, 1991, from W. R. Pearce, M.C.I.P., Head - Strategic Planning Division, respecting Assessment of Marsh Located Beside Volunteer Field, Dundas

(Murphy/Coates)

That this item be tabled to the October meeting.

CARRIED

- c) Information from Air & Waste Management Association respecting a conference "Toxic Air Pollutants from Mobile Sources", to be held at The Westin Hotel - Renaissance Center, Detroit, Michigan, October 15-18, 1991

(Copps/Coates)

That this item be received as information.

CARRIED

New Business No. 2

Request for Budget - Chairman's Advisory Committee on Environmental Issues

(Murphy/McLean)

That in anticipation of significant work to be done by members of the Chairman's Advisory Committee on Environmental Issues during 1992, some of which will require funding, it is recommended that budgets, each totalling \$1,500, be established by the Department of Engineering, by the Regional Planning Department, and other Regional Departments involved in the committee's activities, in order to cover the costs associated with the work.

CARRIED

4. ADJOURNMENT

On motion **(Murphy/McLean)** the meeting adjourned at 12:30 p.m.

CARRIED

Chairman

Secretary



2.1

SEP 12 1991 P.O. Box 5182
HAMILTON, ONTARIO L8S 4L3

September 8, 1991

Mr. Ken Pidsadny
Regional Clerk's Department
Region of Hamilton-Wentworth
P.O. Box 910
Hamilton, Ontario
L8N 3V9

RE: RESIGNATION FROM CACEI

Dear Ken:

As I expected, my university program schedule is such that I will not be available to attend CACEI meetings. Therefore, I am tendering my resignation from the committee.

As you know Mr. Don McLean has been filling in for me over the summer period. I recommend Don as my full-time replacement on the CACEI. Don is a member of the Hamilton Naturalists' Club, sits on the club's Board of Directors, and chairs our education committee. He recently co-ordinated the "Walkathon for Nature", a project successful beyond anyone's dreams, and has developed an adopt a natural area program for area schools. He has boundless energy and would be a prime asset to the committee.

I have enjoyed my time spent on the committee and will continue to keep in touch with you through my involvement with the Taskforce on Sustainable Development and as a member of the Natural Areas sub-committee of the CACEI.

Yours truly,


Brian McHattie

PROPOSED MOTION ON PESTICIDES

Whereas pesticides are by their nature toxic to animal and/or plant life;

And whereas they have been shown to cause sickness, cancer and even death in humans and other animals;

And whereas dangers to the humans and other parts of the living environment increase with repeated exposure to pesticides;

And whereas pesticides constitute toxic wastes and are an established area of concern with respect to pollution of our water, land and other parts of the environment;

And whereas the handling, application and use of pesticides is recognized as potentially dangerous to the persons involved and is regulated by the federal and provincial agencies;

And whereas humans and other living organisms are frequently exposed to pesticide application without their agreement;

And whereas it has been estimated that the amount of pesticides being applied in the urban environment is actually greater per unit of area than that used in agriculture;

Moved that the Regional Health Department of Hamilton-Wentworth investigate and report back to the Chairman's Advisory Committee on Environmental Issues within two months:

1. The extent of public and private use of pesticides in Hamilton-Wentworth;
2. The potential negative effects on the health of humans and animals;
3. Recommendations on how pesticide use can be reduced, including by the Region itself;
4. Approaches to this issue taken by other municipalities and regions in Ontario. "

The input of the Ontario Ministry of the Environment and other agencies responsible for pesticide related matters should be sought.

September 12, 1991

2.3

44- KIN

Response of the Natural Areas Subcommittee to
E.S.A. DEVELOPMENT SENSITIVITY STUDY
Geomatics International (1991)

The Environmentally Sensitive Areas Development Sensitivity Study prepared for the region of Hamilton-Wentworth by Geomatics International Inc. is an important and timely contribution to the region's policy of "protecting ESAs to the fullest extent possible". We support the conclusions and recommendations reached by Geomatics with regards to the eight ESAs studied, and with regards to the policies which should be implemented with respect to all the ESAs in the region.

The main conclusion which must be drawn from this document is that past practices have been insufficient in meeting the region's objectives for protecting ESAs, and definite changes must be made to correct these shortcomings. Although the authors examined only eight of the 37 regional ESAs, they have accumulated a wealth of evidence showing that serious degradation has taken place, and continues to take place, in these (and by implication, other) natural areas of Hamilton-Wentworth. To their credit, the authors have also made detailed recommendations for both improvements in the implementation of the region's policies and for amendments to the process by which these areas are afforded protection under the Regional Official Plan.

Two things stand out in this regard. Firstly, the policy of allowing waivers in place of Environmental Impact Statements by prospective developers must be eliminated or at minimum, sharply curtailed. At the same time, the quality of EISs, where they have taken place, is unsatisfactory to meet the objectives of protecting the ESAs. Secondly, there is a very obvious need for an advisory body at the regional level, such as an Ecological and Environmental Advisory Committee (EEAC), to oversee the preparation of the EISs and other parts of the review process and its implementation.

THE E.I.S. PROCESS

The fact that waivers in lieu of EISs have been granted in 32 of the 37 development applications affecting the eight ESAs examined by Geomatics shows that the intended protection of these areas has not taken place. It also severely hampers an adequate assessment of what impact these developments have had on these natural areas. Geomatics also points out that there is "no rationale for granting waivers based on size of development or degree of potential disturbance" and that large subdivisions have been granted waivers while applications to construct a single family home on a formerly occupied lot have been required to provide an EIS.

Geomatics also notes that the current process in which the first level of the approval process for developments affecting ESAs is the municipality rather than the region "results in a lack of consistency in application, a restricted consideration of impact vis-a-vis implications of the development on ESAs downstream but outside of the local municipality, and a restricted assessment with regard to representativeness". It is clear to us that only the regional government can have the perspective as well as the resources to adequately implement proper protection for the designated environmentally sensitive areas. Therefore we endorse the recommendation that "the Regional Municipality of Hamilton-Wentworth should be the first step in the review/approval process".

THE NEED FOR AN E.E.A.C.

Where EISs were actually carried out, the Geomatics study found serious deficiencies. In most cases, the EISs only addressed some of the criteria on which the ESA's designation was based. In particular, criteria such as number 7 (large undisturbed natural habitats) and number 9 (has a high aesthetic value), were ignored; and these were usually the ones most diminished by the proposed development. While the size of each individual development, taken on its own, may not seem significant, the cumulative effect of such "nickel-and-diming" will result in serious deterioration of some of our most prized natural areas.

There were also instances of conducting field studies at a time of the year when the searched for species would be unlikely to be found, and examples of "critical conclusions [which] were not supported with field or literature justification". Despite this, all the EISs that were carried out were also accepted.

Finally, the Geomatics study found evidence in several cases that mitigation measures promised in the EIS were either inadequate or not properly carried out. And, despite the difficulties imposed by an absence of an EIS and the ensuing passage of time between the actual construction work and the Geomatics study, considerable evidence was uncovered of damage done to ESAs (both where the development took place and downstream of it).

All this shows the need for an EEAC or similar body, guided by specific policy guidelines, to oversee the EIS process. In this regard, we strongly agree with Geomatics' recommendations that either waivers should be eliminated entirely and all development applications in or adjacent to ESAs be evaluated by an EEAC; or that the opportunity for a waiver only exist under definite limited circumstances enunciated in policy guidelines. While it can be said that the EIS process, as implemented since the adoption of the ROP, has been better than nothing; a continuation of the status quo will result in both specific and cumulative damage and deterioration of the ESAs in the region.

WATER QUALITY

Geomatics has documented some of the damages that have taken place in the eight studied ESAs since they were designated in the ROP in 1976. Some of these, such as overloadings of ammonia and phosphorus in the Christie Conservation Area ESA and further downstream in the Spencer Creek watershed, appear to be continuing today as a result of exceedences of Certificate of Approval Limits (at least in 1988-1990) by ORENCO and Tend-R-Fresh, and other unknown sources of contaminants. The Geomatics recommendations in this regard should be acted upon at once. Their call for systematic testing for possible leachate from the Steetly landfill is also immediate and critical.

Other damages are also on-going, not just at one or two identifiable locations, but virtually everywhere that development is taking place — not just in and adjacent to ESAs, but throughout the region — and are cause for further alarm. These revolve around erosion and stormwater runoff and the siltation and sedimentation damages that are occurring in ESAs such as Cootes Paradise as well as most other regional watercourses. This is also an issue of groundwater recharge, and thus affects water quality throughout the region, especially in the areas serviced by wells.

Measures to deal with these problems should not be limited to ESAs and their environs. A regionwide program is overdue to eliminate siltation and sedimentation by ensuring that appropriate measures are carried out at all construction sites. We strongly agree with the Geomatics recommendation that the "use of siltation control devices should be mandatory for all developments undertaken within the Regional Municipality of Hamilton-Wentworth".

Measures should also be taken to address the problem of stormwater runoff resulting from a very high percentage of properties being made impervious to rain. This problem is not limited to ESAs but is central to the major issues of water quality throughout the region, including Hamilton Harbour and Lake Ontario. We are all familiar with the escape of untreated sewage as a result of the overloading of the sewage treatment facilities during heavy stormwater runoffs. Any increases in stormwater runoff make these problems worse, and any improvements in groundwater recharge will assist us in dealing with these issues. Indeed, it should not be surprising that measures to protect environmentally sensitive areas from deterioration are also important to reversing and ameliorating environmental degradation in the region as a whole.

The region is currently grappling with the problem of stormwater runoff. It should be understood clearly that we are the authors of our own difficulties in this regard. In

natural environmental situation, most rainfall filters into the soil and either becomes part of the groundwater or contributes to plant respiration, etc. However, when we pave or build over large percentages of the soil surface, this natural process is disrupted and we are faced with excessive runoff which is the source of siltation and sedimentation in our watercourses and, in our urban setting, also results in overloading of our sewer systems. The region is then faced with such costly alternatives as greatly increased capacity in our sewage treatment facilities and/or massive artificial retaining ponds. At the same time, our natural watercourses are degraded — flooded in the extreme during periods of high runoff, polluted with salt and other roadway detrius, and reduced to a trickle in the summer months as a result of the reduced groundwater recharge. Development designs now exist which minimize stormwater runoff and maximize infiltration of rainfall. Such designs should be the requirement in and adjacent to ESAs as part of maintaining water quality. They would also be an excellent way of preventing the worsening of current problems with stormwater runoff. A program might also be considered to use methods such as these as means of alleviating our sewer overflow problems.

E.S.A. BUFFERS AND OTHER GREEN AREAS

The Geomatics study raises the issue of adequate buffer zones between the ESAs and developments adjacent to them. It praises the 30 metre buffer established between the escarpment edge and the Ashbury Lane subdivision in upper Stoney Creek as an example of a positive step. This concept seems to us to be a positive one worthy of further consideration. The buffer zones would both protect sensitive features of the ESA as well as help to reduce uncontrolled access, especially by all-terrain vehicles, and by persons intent on dumping refuse.

The study also touches on the possible ways of dealing with other "green areas" outside the boundaries of the ESAs and calls for "additional policies placing primary emphasis on the natural environment in planning" to be incorporated into the revised Official Plan. This would require the identification of all green space in the region and consideration of which areas should be designated as ESA buffers or given some other formal designation. These are positive steps in the right direction. Within such planning consideration should also be given to linking ESAs in order to enhance passive recreational use of these areas as well as ensure "wildlife corridors" that would allow for the maintenance of genetic diversity. This might take the form of identifying environmental constraints to development of green areas, emphasizing the need to preserve or work around significant landscape features such as creeks, ponds, small woodlots, hedgerows, etc. This might be accomplished with such measures as density bonuses in return for preservation of specific features and maintaining the integrity of "greenways" and "wildlife corridors".

CONCLUSION

Although limited to eight of the 37 regional ESAs, the Geomatics study has been a very useful project. It has not only identified a number of specific problems and possible solutions for impacts affecting these eight ESAs, it has also shown clearly that definite policy changes must be made to achieve the region's goals in protecting ESAs to the fullest extent possible. Consequently, we support the preparation of environmental updates for the other 29 ESAs.

We have also prepared a list of some twenty issues which require specific action that can be undertaken immediately by the Chairman's Advisory Committee on Environmental Issues, the Regional Planning Department, the Conservation Authority or the Ministry of the Environment.

2.4

Important new information about the dental office waste stream.
To order the full report, contact Laurel Tomchick at (206) 684-2330.

Dental Office Waste Stream Characterization Study

Municipality of Metropolitan Seattle

May 1991



EXECUTIVE SUMMARY

Objective

The Municipality of Metropolitan Seattle conducted a study October-December 1990 to:

- identify toxic contaminants discharged to Metro's sanitary sewerage system from dental offices,
- determine the impact of metals, particularly mercury, in dental waste on the Metro sewerage system, and
- develop recommended waste management guidelines.

Metro conducted the study as part of its Industrial Waste Small Quantity Generator Program. The study was also done in preparation for the implementation of the Local Hazardous Waste Plan for King County.

Background

Metro selected the waste stream of dental offices for study because of the high use of mercury, silver and other metals in dental work. Mercury is of special concern to Metro because of occasional treatment plant discharge violations caused by mercury spikes at the Renton and West Point treatment plants.

Methodology

To characterize the waste stream, Metro analyzed samples from volunteer dental offices for metals. Local dentists were surveyed to assess their attitudes, behavior and knowledge of waste management practices. The survey also provided information about quantities of spent photographic fixer and dental amalgam waste.

Results

- Most of the samples exceeded Metro's local discharge limits for mercury, silver and copper.
- About 14 percent of the mercury loading to the Metro sewerage system appears to come from dental offices.

- Because small volumes of mercury come from individual offices, it is very unlikely that dental office waste is the source of mercury spikes observed at the Renton and West Point treatment plants.
- The survey indicates that the dental profession has a high level of interest in waste management.

Recommendations

Based on the survey and analytical results, Metro should develop and implement a program requiring a significant reduction in the amount of waste discharged from dental offices to the sewerage system. This program should take the following steps:

- Promote recycling of materials now being taken to solid waste landfills.
- Encourage the involvement of the local dental association in producing and transmitting clear, concise guidelines for waste management.
- Coordinate with other governmental agencies in addressing and avoiding unclear or conflicting information.
- Incorporate waste management guidelines in the formal education of dentists and dental assistants.
- Require that spent photographic fixer be recycled or reclaimed.
- Require a reduction in the amount of mercury discharged from the dental operator waste stream.
- Explore mechanisms, such as filtration, settling and centrifuging, to control mercury entering the sewerage system.
- Evaluate the effectiveness of the waste management guidelines.

2.5

ATTENTION: MR. KEN PIDSADNY

Dear Ken:

As per our conversation this morning, please find following this page five letters that the Natural Areas Subcommittee would like placed on the agenda of the next Chairman's Advisory Committee on Environmental Issues (August 8, 1991). As I explained to you in our telephone conversation, these constitute a part of the subcommittee's review of the Geomatics International Inc report titled "ESA Sensitivity Study". The other portion of our response to this report, a comment on the overall report, is still in preparation and should be available for the September meeting of CACEI. The matters dealt with in these letters, however, we felt should be dealt with as soon as possible. Essentially they address specific concerns raised by Geomatics in its report.

Don McLean
Vice-Chairman
Natural Areas Subcommittee

Mr. John Vogt
Ministry of the Environment of Ontario

Dear Mr. Vogt:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the Ministry of the Environment may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— The 1976 Ecologistics report on this ESA reported "fair water quality based on occasional summer temperatures exceeding 24C and occasional dissolved oxygen concentrations as low as 5 mg/L. Since the Ecologistics study indicated the presence of 13 fish species (of which 5 were "indicator species") and Geomatics reports the presence of an additional RARE fish species (the Redside Dace), are there any current water quality samplings of the reservoir and adjacent ponds for water temperatures and dissolved oxygen content (Geomatics reports none) and if not, why not, given the presence of significant fish species? What is the assessment of the Ministry on the affect of the Christie reservoir on water quality (especially the above two features), and what alternatives have been considered to improve the situation?

— Geomatics reports that "concentrations of ammonia exceeded the Provincial Water Quality Objective (PWQO) for the protection of aquatic life" on 6 of 12 test occasions upstream of the reservoir and on 5 of 12 occasions downstream in the 1988-1990 period. They also report that the PWQO for phosphorus was exceeded at both stations on all 4 occasions in both 1988 and 1990. Both phosphorus and ammonia enter this watershed from ORENCO and Tend-R-Fresh industries. The 1988 wastewater discharge summary for these two companies indicates that Tend-R-Fresh exceeded its Certificate of Approval Limits for ammonia in 10 of 12 months and for phosphorus in 8 of 12. Certificate of Approval limits were also exceeded in 1988 for suspended solids in 7 of the 12 months and for oil and grease in 2 of 12. 1989 information was not available to Geomatics. ORENCO exceeded the guidelines for suspended solids in 2 of 12 months and equalled the oil and grease limit on one occasion. What are the 1989 figures? What measures have been taken by MOE to deal with these violations of Certificate of Approval limits?

ESA 13 Spencer Gorge (Webster's and Tew's Falls)

— Geomatics expresses concern about leachate from the Steetly Brow Landfill site passing through the fractured bedrock below the site and contaminating Spencer Creek. It recommends that seeps below the site should be monitored annually and analyzed for nutrients, total phenols and total organic carbon to determine whether a leachate collection system is required at the base of the escarpment. What is the view of the Ministry of the Environment on this recommendation? What measures can be taken, and how quickly, to establish such a monitoring system?

ESA 14 Borer's Falls - Rock Chapel

— Geomatics recommends monitoring of the sugar maples being tapped by the Royal Botanical Gardens for evidence of die-back or other symptoms of direct

air pollution impingement. What monitoring programs of vegetation exist in Hamilton-Wentworth for effects of acid rain and other air pollution?

ESA 15 Cootes Paradise

— Geomatics recommends that anthropogenic sources of copper, iron, phenols and phosphorus resulting in exceedences of PWQO in Spencer Creek should be investigated. Can this be undertaken?

Thank you for your attention to these matters.

Mr. Dale Turvey
Regional Engineering Department
Regional Municipality of Hamilton-Wentworth
119 King Street West, 14th Floor
Hamilton, Ontario
L8N 3V9

Dear Mr. Turvey:

The Chairman's Advisory Committee on Environmental Issues, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality of Hamilton-Wentworth. We believe that the Regional Planning Department may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 14 Borer's Falls - Rock Chapel

— Geomatics investigators observed sediment contribution to Borer's Creek from the channelization project where the creek intersects Highway #5. Although it was raining at the time they were there "and the ground cover has been removed over a large area to the north of the highway", there was "no evidence of siltation curtains". Who was responsible for this project? Why were siltation curtains not in place?

ESA 25 Niagara Escarpment - Devil's Punch Bowl East

— Geomatics reports that surface runoff from Ridge Road either drains towards the escarpment or into a drainage ditch on the south side of the road which is drained via culvert pipes that discharge onto the face of the escarpment and are causing visible erosion to the escarpment face below each outlet, impacting the slope forest and undermining the roadway. They note the point at which Ridge Road crosses Stoney Creek as a specific example of this problem. Is Ridge Road under the jurisdiction of the regional engineering department? What measures can be taken to remediate this erosion problem?

— Geomatics also reports significant dumping at at least five sites along Ridge Road. These "occurred invariably where roadside parking or pull-off space was available". They particularly note the gravel parking lot on the west side of the Punch Bowl and recommend that it be removed. They also recommend consideration of realigning Ridge Road so that it is well back from the escarpment particularly at the Devil's Punch Bowl. Who is responsible for the parking lot in question and can measures be taken to have it removed? What alternatives have been investigated to deal with the dumping of garbage over the face of the escarpment in this area? What legal remedies are currently available to deal with illegal dumping of refuse? How many charges have been laid in this regard in Hamilton-Wentworth in each of the past five years? What is the disposition of these cases? What is the authority of the regional government or the municipalities to deal with this problem?

Thank you for your attention to these matters.

Mr. Ben Vanderbrug
Manager
Hamilton Region Conservation Authority
P.O. Box 7099
Ancaster, Ontario
L9G 3L3

Dear Mr. Vanderbrug:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the HRCA may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— The 1976 Ecologistics report on this ESA reported "fair water quality based on occasional summer temperatures exceeding 24C and occasional dissolved oxygen concentrations as low as 5 mg/L. The Ecologistics study indicated the presence of 13 fish species (of which 5 were "indicator species") and Geomatics reports the presence of an additional RARE fish species (the Redside Dace). Are there any current water quality samplings of the reservoir and adjacent ponds for water temperatures and dissolved oxygen content (Geomatics reports none) and if not, why not, given the presence of significant fish species? What is the assessment of the HRCA on the affect of the Christie reservoir on water quality (especially the above two features), and what alternatives have been considered to improve the situation?

— Geomatics reports that "concentrations of ammonia exceeded the Provincial Water Quality Objective (PWQO) for the protection of aquatic life" on 6 of 12 test occasions upstream of the reservoir and on 5 of 12 occasions downstream in the 1988-1990 period. They also report that the PWQO for phosphorus was exceeded at both stations on all 4 occasions in both 1988 and 1990. Both phosphorus and ammonia enter this watershed from ORENCO and Tend-R-Fresh industries. The 1988 wastewater discharge summary for these two companies indicates that Tend-R-Fresh exceeded its Certificate of Approval Limits for ammonia in 10 of 12 months and for phosphorus in 8 of 12. Certificate of Approval limits were also exceeded in 1988 for suspended solids in 7 of the 12 months and for oil and grease in 2 of 12. 1989 information was not available to Geomatics. ORENCO exceeded the guidelines for suspended solids in 2 of 12 months and equalled the oil and grease limit on one occasion. We would like the comments of the HRCA on this situation. What measures have been taken by HRCA with regards to this situation?

ESA 13 Spencer Gorge (Webster's and Tew's Falls)

— Geomatics recommends that the HRCA consider removing two outdoor privies east of Webster's Falls on the Bruce Trail which it believes are in poor condition and are likely contributing to nutrient and fecal contamination of Spencer Creek. Has the HRCA considered such action? If not, could the HRCA comment on the Geomatics' recommendation.

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. How does the HRCA address this problem with regards to their properties? Would an inter-agency educational program be useful in this regard?

— Sedimentation and siltation loads are of considerable concern with regards to the Cootes Paradise ESA. All upstream developments not employing mitigating measures to stop sediment runoff are potential contributors to this problem. What role, if any, does the HRCA play in controlling sedimentation in the Spencer Creek and other area watersheds? In your view, what mitigating measures to control sedimentation should be required?

ESA 18 Dundas Valley

— Geomatics recommends that "control of surface erosion and elimination of stream siltation must be fully implemented for all developments within, adjacent and upstream of the Dundas Valley ESA". The recommend measures such as silt curtains, off-channel siltation ponds, rip-rap, etc. as well as regular maintenance of the control structures. They also suggest monitoring of development sites "at least weekly and daily during rain events". What current developments are taking place within, adjacent to and upstream of the Dundas Valley ESA? What mitigating measures are currently required to control surface erosion and stream siltation in each of these projects? What role does the HRCA play in control and monitoring of surface erosion and stream siltation from construction sites?

Thank you for your attention to these matters.

Mr. Jim Thoms
Planning and Development Department
Regional Municipality of Hamilton-Wentworth
119 King Street West, 14th Floor
Hamilton, Ontario
L8N 3V9

Dear Mr. Thoms:

The Chairman's Advisory Committee on Environmental Issues, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality of Hamilton-Wentworth. We believe that the Regional Planning Department may be able to help us resolve a number of concerns raised by Geomatics in their report. They are as follows:

ESA 12 Christie Conservation Area

— There are currently two proposed subdivisions for which no waiver or EIS file number exists. One is a 20 unit subdivision adjacent to the ESA at Highway 8 and Crooks Hollow Road. The other is a 41 unit subdivision north of Greenville (Spencer Creek Estates). Both are within the drainage area of the ESA downstream of the reservoir and may result in (1) uncontrolled access to the ESA and (2) sediment contamination during construction, and the latter may impact on Spencer Gorge and Cootes Paradise ESAs. What is the current status of these two proposals? Why is there no EIS or waiver on file?

ESA 14 Borer's Falls - Rock Chapel

— Geomatics reports excess siltation from construction of Eferding Estates and violations of the mitigating measures requested of the developer. What monitoring of this development took place and what reports were filed as a result?

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. Can the region consider an educational program for residents and homeowners adjacent to ESAs to encourage neighbour supervision? What other measures might be taken?

— Sedimentation and siltation loads are of considerable concern with regards to the Cootes Paradise ESA. All upstream developments which fail to employ mitigating measures to ensure no sediment runoff are potential contributors to this problem. What current developments are taking place in the Spencer Creek watershed (provide a list)? What mitigating measures to control sedimentation have been required in each of these developments? What other measures can or have been taken to improve this situation?

ESA 18 Dundas Valley

— Geomatics recommends that "control of surface erosion and elimination of stream siltation must be fully implemented for all developments within, adjacent and upstream of the Dundas Valley ESA". They recommend measures such as silt curtains, off-channel siltation ponds, rip-rap, etc. as well as regular maintenance of the control structures. They also suggest monitoring of

development sites "at least weekly and daily during rain events". What current developments are taking place within, adjacent to and upstream of the Dundas Valley ESA (provide a list)? What mitigating measures are currently required to control surface erosion and stream siltation in each of these projects? Who is responsible for monitoring of surface erosion and stream siltation from construction sites? How frequently are the inspections carried out?

ESA 19 Tiffany Falls

— Geomatics reports that a 35-lot subdivision called Falling Brook Estates is proposed for a site adjacent to and partly overlapping the southeast boundary of this ESA. They are concerned that insufficient information on this development proposal is available to determine possible impacts on nesting locations of rare bird species in this ESA. They are also concerned about increased access to the ESA. Can your department provide our committee with information regarding this development?

ESA 25 Niagara Escarpment - Devil's Punch Bowl East

— Geomatics is deeply concerned about a proposed expansion of the Maplevue Estates subdivision into the last remaining portion of the secondary escarpment plateau in this ESA. They point out that while such secondary escarpments are common in Grey and Bruce Counties they do not occur anywhere else but here in Hamilton-Wentworth. They report that "the loss of this last remnant of the plateau would clearly impact upon all three ESA criteria" and they recommend that the proposed expansion "should be fully evaluated prior to construction". With all due haste, can this committee receive a full report on this critical situation for review?

— Geomatics reports that several residential estate developments and a subdivision expansion have taken place adjacent to and/or within the ESA for which they cannot find either waivers or EISs. One is located at the western end of the ESA between Ridge Road and Highway #20 and "appears to have involved the clearing of a portion of forest above the escarpment". Can these charges be investigated and a report made to this committee? Specifically, why was the EIS/waiver process not followed? What measures can be taken as a result?

Thank you for your attention to these matters.

Mr. Peter Rice
Conservation Director
Royal Botanical Gardens
Box 399
Hamilton, Ontario
L8N 3H8

Dear Mr. Rice:

The Chairman's Advisory Committee on Environmental Issues for the region of Hamilton-Wentworth, and more specifically its Natural Areas Subcommittee, are currently reviewing the "E.S.A. Development Sensitivity Study" prepared by Geomatics International Inc. for the Regional Municipality. We believe that the HRCA may be able to help us resolve some concerns raised by Geomatics in their report. They are as follows:

ESA 14 Borer's Falls - Rock Chapel

— Geomatics recommends monitoring of the sugar maples being tapped by the RBG for evidence of die-back or other symptoms of direct air pollution impingement. Is the RBG doing this? What other monitoring programs of vegetation is the RBG carrying out on effects of acid rain and other air pollution in this region?
What results are available on such programs?

ESA 15 Cootes Paradise

— Geomatics reports damage to this ESA and others, particularly the Dundas Valley as a result of the use of the trails and other areas by motorized vehicles, all terrain vehicles and even four wheel drive vehicles. What charges have been laid in the last five years in this regard by the RBG and what was the disposition of these cases? Would an inter-agency educational program be of use in dealing with this problem? What other suggestions would the RBG make in this regard?

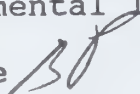
Thank you for your attention to these matters.

MEMORANDUM
PLANNING & DEVELOPMENT DEPARTMENT
STRATEGIC PLANNING DIVISION

Date: September 11, 1991

File: 764.61 3

To: The Chairman's Advisory Committee
On Environmental Issues

From: Bill Pearce 

Ext. 4178

Re: August 12/91 Letter from the Natural Areas Sub-Committee
to the Commissioner of Planning and Development Regarding Various
Concerns Raised in the Geomatics "ESA Development Sensitivity
Study".

Following is this Department's response to the above concerns.

ESA 12, Christie Conservation Area

The referenced Crooks Hollow subdivision (25T-87031) originally was located outside of the environmentally sensitive area. A revised plan has been received which extends into the ESA. Department comments on the revised plan indicate that an Impact Statement or waiver is required.

Spencer Creek Estates (25T-87011) is outside of the ESA, and has yet to receive any type of approvals.

ESA 14, Borer's Falls - Rock Chapel

Regional monitoring of development of a subdivision such as Eferding Estates will take place if the activity to be monitored is a regional responsibility. Grading, drainage, and erosion control activities are the responsibility of the area municipality, and/or the appropriate conservation authority; and/or other involved agencies or organizations that have land directly affected by the development such as a railway or Ontario Hydro.

ESA 15, Cootes Paradise

Damage caused in ESAs' by motorized vehicles, etc. usually involves trespassing onto public or privately owned property. If motorized vehicles is the only problem there are a number of

ways to solve it, ranging from posting of lands, to restricting vehicle access points, to increasing police patrol activities. Recommendations 4.9 and 4.12 of the Geomatics report deal with this issue.

Since the Spencer Creek watershed drains a good part of the Dundas Urban Area there are a number of developments that probably affect this watershed. The issue of sedimentation and siltation resulting from development is a valid one, not just for this watershed, but all watersheds in the Region. A number of authorities have jurisdiction or responsibilities pertaining to sheet erosion and resulting siltation/sedimentation problems.

The Hamilton Region Conservation Authority is presently looking at this issue in conjunction with the Region, area municipalities; and the Ministries of Agriculture and Food, Environment, and Natural Resources. The intended outcome of this review will be a common set of standards to significantly reduce or eliminate soil erosion stemming from construction practices.

This issue will also be examined through the Department's Watershed Planning exercise which is being initiated this summer.

ESA 18 Dundas Valley

See above comments on ESA 15, Cootes Paradise.

ESA 19, Tiffany Falls

The Town of Ancaster is presently review an EIS waiver request pertaining to servicing requirements for the development even though the actual area to be developed is outside of the ESA. The Town may consider modifications to the existing conditions of draft approval as a result of the waiver request review.

ESA 25, Niagara Escarpment - Devil's Punch Bowl East

Planning Staff are opposed to the Maplevue Estates expansion and have stated that it appears to be in conflict with the Niagara Escarpment Plan, and Regional Official Plan. Regional Council is on record as supporting an interpretation of the Niagara Escarpment Plan which would allow development of the area. In any event, development could not proceed unless a Environmental Impact Statement or waiver request was approved.

From Staff's knowledge, residential estate developments or extension of plans of subdivision referred to in the letter were outside of the ESA, under jurisdiction of the Niagara Escarpment Commission, or are still at initial approval stages which would not preclude the requirement for an impact statement.

The Ridge Road situation mentioned in the report appears to

relate to an NEC application for a dwelling which was located outside of the ESA. One of the NEC conditions was that there be no disturbance to or cutting of trees on the border of or within the mature tree line along the escarpment brow. If, in fact, some of this area was cleared then this is indicative of another issue which is NEC policing of its own condition.

This has been identified in the past as a potentially significant problem where the NEC establishes conditions as part of its approval process, yet is not willing to monitor their implementation. When this situation has been brought to the attention of NEC staff the typical response is that the NEC does not have adequate staff resources to follow through on conditions, or condition monitoring should be the jurisdiction of another agency. This is obviously an undesirable situation and must be dealt with by the Commission if it is to have credibility in its development approval process.

3.a

SEMINAR
**MUNICIPALITIES
AND THE ENVIRONMENT:
TRUTH AND CONSEQUENCES**

FRIDAY, OCTOBER 18, 1991
9:00 A.M. - 3:30 P.M.

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200 BLOOR STREET EAST (MAIN FLOOR THEATRE)
TORONTO, ONTARIO

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REFUND POLICY: An administration fee for seminar cancellations and refunds will be \$53.50 (\$50 + \$3.50 GST). Requests for refunds must be in writing and received by AMO on or before October 4, 1991. Please allow 2-4 weeks for processing.

SUMMER 1991

Environment
Environnement

ÉTÉ 1991

PUBLIC REVIEW OF NEW DRINKING WATER GUIDELINE FOR NDMA

The minister has referred the Expert Committee Report and Ministry rationale for the 9ppt Interim Maximum Acceptable Concentration (IMAC) to Ontario's Advisory Committee on Environmental Standards to consult with the public and recommend a final Maximum Acceptable Concentration (MAC).

WHAT IS NDMA?

NDMA (N-Nitrosodimethylamine) is a chemical compound known to cause cancer in a wide variety of animal species, and may cause cancer in humans.

An odorless, tasteless, yellow, oily liquid at room temperature, NDMA is no longer produced for commercial purposes. However, it is an inadvertent byproduct of the chemical processes used in some industries such as rubber manufacturing, leather tanning, pesticide manufacturing and food processing, and as a result may be found in sewage treatment plant effluent.

OCCURRENCE IN ONTARIO

In November, 1989, the Ministry's Drinking Water Surveillance Program (DWSP) detected the first high concentration of NDMA in drinking water in Ontario at

EXAMEN PUBLIC DU NOUVEAU CRITÈRE DE QUALITÉ DE L'EAU POTABLE POUR LA NDMA

La ministre a transmis le rapport du comité d'experts et la justification du seuil de 9 ppt au Comité consultatif des normes environnementales de l'Ontario qui sollicitera l'avis du public et recommandera une concentration maximale admissible (CMA).

QU'EST-CE QUE LA N-

NITROSODIMÉTHYLAMINE (NDMA)?

La N-nitrosodiméthylamine est un composé chimique dont on connaît le pouvoir cancérigène chez une grande variété d'espèces animales; ce composé pourrait même être une cause de cancer chez les humains.

Liquide jaune inodore, insipide et huileux à la température de la pièce, la N-nitrosodiméthylamine n'est plus fabriquée à des fins commerciales. Elle reste cependant un dérivé insidieux des procédés chimiques utilisés dans certaines industries, notamment celles du caoutchouc, du tannage du cuir, de la fabrication de pesticides et de la transformation des aliments. On en retrouve donc dans les effluents des usines d'épuration des eaux d'égout.

Elmira. No NDMA was detected in similar DWSP studies at over 40 locations across Ontario.

An Interim Maximum Acceptable Concentration (IMAC) of 14 ppt (parts per trillion) was adopted by the Ministry to reduce NDMA discharges and issue a control order to Uniroyal Limited -- making Ontario the first province in Canada to adopt such a guideline. The 14 ppt IMAC, based on readily available NDMA information, was a temporary measure taken to reduce discharges until a more in-depth analysis could be conducted.

The Ministry has continued monitoring drinking water supplies in the Grand River System serving Waterloo, Kitchener, Brantford and smaller communities along the river which empties into Lake Erie near Dunnville.

INTERIM MAXIMUM ACCEPTABLE

CONCENTRATION (IMAC)

IMAC is a term used to describe limits for substances of concern with known chronic effects in humans and animals and for which there are no established maximum acceptable concentrations. When a substance is detected above the IMAC level, it signals the need for more sampling, investigation and corrective action on a case-by-case basis.

EXPERT COMMITTEE REVIEWS NDMA

EXPOSURE \ RISK

An Expert Committee was established by the Ministry in May, 1990, to identify potential guideline numbers and associated risk levels based on health considerations. All pathways of exposure to NDMA - via air, water, soil, diet and consumer products - were evaluated.

The health risk of NDMA exposure at various levels over a lifetime (incremental lifetime cancer risk) was assessed.

The Expert Committee included representatives from the Ministries of Environment, Health and Labour, and the Regional Municipality of Waterloo. Its report has assisted the Ministry in selecting a more appropriate IMAC for drinking water.

INCIDENCE EN ONTARIO

C'est en novembre 1989, à Elmira, qu'on a décelé, dans le cadre du Programme de surveillance de la qualité de l'eau potable du Ministère, la première concentration élevée de NDMA dans l'eau potable de la province. Aucune autre trace de NDMA n'a été relevée lors d'enquêtes menées dans plus de 40 localités de la province dans le cadre du même programme.

Le ministère de l'Environnement a adopté une concentration maximale admissible provisoire (CMAP) de 14 parties par billion (ppt) dans le but de réduire les rejets de NDMA et de délivrer un arrêté d'intervention à la société Uniroyal Limited, ce qui fait de l'Ontario la première province canadienne à adopter une telle directive. La CMAP de 14 ppt, fondée sur les données existantes concernant la NDMA, représentait une mesure provisoire visant à réduire les rejets jusqu'à ce qu'une analyse plus approfondie soit effectuée.

Le Ministère a continué de surveiller les sources d'approvisionnement en eau du réseau de la rivière Grand qui dessert Waterloo, Kitchener, Brantford et les plus petites localités longeant la rivière qui se jette dans le lac Érié, près de Dunnville.

CONCENTRATION MAXIMALE

ADMISSIBLE PROVISoire (CMAP)

La CMAP décrit les seuils d'une substance préoccupante dont on connaît les effets chroniques sur les humains et sur les animaux et pour laquelle aucune concentration maximale admissible n'a encore été établie. La présence d'une substance à une concentration supérieure à la CMAP indique qu'il est nécessaire d'effectuer d'autres échantillonnages et d'autres enquêtes, et de mettre en oeuvre de nouvelles mesures correctrices adaptées à chaque cas.

UN COMITÉ D'EXPERTS ÉTUDIE LE RISQUE

QUE PRÉSENTE L'EXPOSITION " LA NDMA

En mai 1990, le Ministère a créé un comité d'experts chargé d'établir les seuils de NDMA admissibles et les risques qu'elle présente pour la santé. Toutes les voies d'exposition à la NDMA ont été évaluées, à

NEW NDMA DRINKING WATER GUIDELINE

A more stringent guideline (IMAC) for NDMA of 9 ppt in drinking water has now been adopted by the Ministry. This was based on the assessment of risks to health and relevant risk management factors such as analytical detection limits and relative risks from other sources of exposure.

The 9 ppt IMAC for NDMA represents an incremental lifetime cancer risk of 1 in 100,000. This is considered by regulatory agencies to be within the range of negligible risk. It is also a concentration which is analytically measurable.

The new IMAC for NDMA will be used to assess both drinking water and point source discharges and, where necessary, to control these discharges from sewage treatment plants and direct industrial dischargers.

savoir l'eau, le sol, l'alimentation et les biens de consommation.

On a aussi mesuré le risque progressif de cancer que présente l'exposition à la NDMA à différentes concentrations tout au long de la vie.

Le comité d'experts réunit des représentants des ministères de l'Environnement, de la Santé et du Travail, ainsi que de la municipalité régionale de Waterloo. Son rapport a aidé le Ministère à établir les concentrations maximales admissibles provisoires dans l'eau potable.

NOUVELLE LIMITE POUR LA NDMA DANS

L'EAU POTABLE

Le Ministère a fixé une limite plus rigoureuse pour la NDMA dans l'eau potable. Cette nouvelle limite de 9 ppt est fondée sur l'évaluation du risque pour la santé et des facteurs pertinents de gestion des risques, tels les seuils de détection analytique et les risques relatifs inhérents à d'autres sources d'exposition.

La concentration maximale admissible provisoire, qui est fixée à 9 ppt pour la NDMA, représente un risque de cancer progressif de 1 sur 100 000. Selon les organismes de réglementation, cette concentration constitue un risque négligeable. Elle est par ailleurs mesurable en analyse.

La nouvelle concentration maximale admissible provisoire servira à évaluer la qualité de l'eau potable et des rejets de sources ponctuelles et, s'il y a lieu, elle permettra de contrôler les rejets des usines d'épuration des eaux d'égout et les rejets industriels directs.



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The Advisory Committee on Environmental Standards is interested in your comments!

The Minister of the Environment has requested that ACES review the documentation and obtain public input on the proposed new interim provincial drinking water guideline of 9 parts per trillion for the chemical N-nitrosodimethylamine (NDMA). Recommendations will be made to the minister.

ACES is an independent advisory body made up of professionals with expertise in the scientific, economic, social and legal fields. To ensure that its recommendations also reflect society's interests, ACES would like to invite you to take part in public consultation.

If you are concerned about the environment and would like to make a difference then get involved in this review. Please make appropriate corrections from the address label in the space provided below and return the form in the envelope provided. We are requesting information only for the purpose of assisting us in finding ways to communicate with you and to give us an idea of who may have a particular interest in specific areas.

We would appreciate it if you would circulate this information to others within or outside your organization who might have an interest in our activities.

-
- ☐ YES Please keep my name on the mailing list to receive notice of public consultation on other contaminants.

NDMA CONSULTATION

- ☐ Send me the Executive Summary/Rationale Document only.
OR
☐ Send me the full package including the Scientific Criteria Document.

NAME/CONTACT PERSON: _____

POSITION: _____

COMPANY/ORGANIZATION: _____

STATISTICS CANADA - STANDARD INDUSTRIAL CLASSIFICATION, MAJOR GROUP

(If applicable) _____

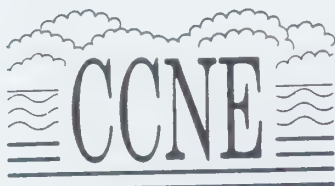
ADDRESS: _____

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For future mailings, I am particularly interested in the following media:

- | | |
|---|---|
| ☐ AIR | ☐ SOIL |
| ☐ SURFACE WATER | ☐ SEDIMENT |
| ☐ DRINKING WATER | ☐ MULTI-MEDIA |
| ☐ GROUND WATER | ☐ ALL OF THE ABOVE |
| ☐ OTHER (PLEASE SPECIFY) _____ | |



Le Comité consultatif sur les normes environnementales sollicite vos commentaires!

La ministre de l'Environnement a demandé au Comité de passer en revue les documents portant sur la norme provinciale proposée pour la N-nitrosodiméthylamine (NDMA) dans l'eau potable, soit 9 parties par billion. Le Comité doit ensuite obtenir les commentaires du public à ce sujet, puis présenter ses recommandations à la ministre.

Le Comité consultatif sur les normes environnementales est un organisme indépendant, qui réunit des spécialistes des domaines des sciences pures, de l'économie, des sciences sociales et du droit. Pour faire en sorte que ses recommandations reflètent également les intérêts de la société dans son ensemble, le Comité vous invite à faire connaître votre point de vue.

Si l'environnement vous intéresse et que vous désirez apporter une contribution personnelle, vous pouvez prendre une part active à l'examen. Si l'étiquette postale contient des erreurs, veuillez effectuer ci-dessous les corrections nécessaires et nous les faire parvenir dans l'enveloppe ci-jointe. Veuillez fournir vos numéros de téléphone, de télécopieur et de boîte aux lettres électronique, s'il y a lieu. Nous avons besoin de ces renseignements pour pouvoir communiquer avec vous et pour avoir une idée des intérêts particuliers de chacun.

Nous vous serions reconnaissants de bien vouloir diffuser ces renseignements auprès des personnes qui travaillent au sein de votre organisme et que nos activités pourraient intéresser.

-
- ☐ OUI, je vous demande de conserver mon nom sur la liste d'envoi. J'aimerais qu'on m'avise de la tenue de consultations publiques sur d'autres polluants.

AU SUJET DE LA NDMA

- ☐ Veuillez me faire parvenir seulement le résumé du document portant sur les critères scientifiques servant à l'élaboration des normes.
- OU
- ☐ Veuillez me faire parvenir toute la trousse, y compris le document portant sur les critères scientifiques servant à l'élaboration des normes (Ce document n'est disponible qu'en anglais.).

NOM/PERSONNE-RESSOURCE : _____

POSTE : _____

COMPAGNIE/ORGANISME : _____

STATISTIQUES CANADA - CLASSIFICATION TYPE DES INDUSTRIES,GRANDS SECTEURS
(s'il y a lieu) _____

ADRESSE : _____

TÉLÉPHONE : _____ TÉLÉCOPIEUR : _____

BOÎTE AUX LETTRES ÉLECTRONIQUE : _____

Les sujets suivants m'intéressent plus particulièrement :

- | | |
|---|--|
| ☐ AIR | ☐ SOL |
| ☐ EAUX DE SURFACE | ☐ SÉDIMENTS |
| ☐ EAU POTABLE | ☐ MILIEUX MULTIPLES |
| ☐ EAUX SOUTERRAINES | ☐ TOUS CES SUJETS |
| ☐ AUTRES (VEUILLEZ PRÉCISER) _____ | |



**THE ADVISORY COMMITTEE ON
ENVIRONMENTAL STANDARDS
IS INTERESTED IN YOUR
COMMENTS ON
NDMA**

The Minister of the Environment has requested that the Advisory Committee on Environmental Standards review the documentation and obtain public input on the proposed new interim provincial drinking water guideline of 9 parts per trillion (ng/L) for the chemical N-nitrosodimethylamine (NDMA).

The Advisory Committee on Environmental Standards was established to contribute to environmental improvement by advising the Minister on standards for environmental contaminants. To ensure that these recommendations also reflect society's interests, we are seeking public input before reporting to the Minister and would like to invite you to take part in this public consultation.

We would like to know the public views on the suggested level, specifically with respect to the following:

1. Is the proposed standard acceptable?
2. If not, what is the basis for your finding the proposed level unacceptable?
3. Do you have an alternative level to propose?

Written comments will be accepted until November 27, 1991.

If you are concerned about the environment and would like to make a difference then get involved!

For further information, and copies of the documentation, please contact:

Advisory Committee on Environmental Standards
Ontario Ministry of the Environment
135 St. Clair Ave. West
Toronto, Ontario M4V 1P5
(416) 323-5034
(416) 323-5080 (fax)



Environment
Environnement



**LE COMITÉ CONSULTATIF SUR LES NORMES
ENVIRONNEMENTALES SOLLICITE VOS
COMMENTAIRES SUR LA
NDMA**

Le ministre de l'Environnement a demandé au Comité de revoir les documents portant sur la norme provinciale proposée pour la N-nitrosodiméthylamine (NDMA) dans l'eau potable, soit 9 parties par billion (10^{12}) (ng/L). Le Comité doit ensuite obtenir les commentaires du public à ce sujet, puis présenter ses recommandations.

Le Comité consultatif sur les normes environnementales a pour mandat de contribuer à l'amélioration de la qualité du milieu naturel; à cette fin, il présente au ministre de l'Environnement des recommandations pour l'établissement de normes en matière de polluants. Le Comité tient également à refléter les intérêts de la société. Aussi veut-il connaître l'opinion du public avant de présenter ses recommandations à la ministre. Il vous invite donc à participer à la consultation.

Les membres du Comité aimeraient connaître votre point de vue au sujet de la nouvelle norme, particulièrement sur les questions suivantes:

1. Est-ce que la norme proposée est acceptable?
2. Sinon, en quoi est-elle inacceptable?
3. Quelle norme proposeriez-vous?

**Prière de faire parvenir vos commentaires avant le
27 Novembre, 1991.**

Si vous souciez de la qualité de l'environnement et que vous aimeriez faire quelque chose, participez à cette consultation.

Pour obtenir plus de renseignements ou d'autres exemplaires du document, adressez-vous au :

Comité consultatif sur les normes environnementales
Ministère de l'Environnement
135, avenue St. Clair ouest
Toronto (Ontario) M4V 1P5
(416) 323-5034
(416) 323-5080 (télécopieur)



**Environnement
Environnement**

The Advisory Committee on Environmental Standards

ACES was established in May 1990 to contribute to environmental improvement by advising the Minister of the Environment on sound, practical standards for environmental contaminants.



 Environment
Environnement

Responsibilities of ACES include:

- ▲ Conducting an open process of public consultation on proposed standards to ensure that all interested parties are given an opportunity to provide their views.
- ▲ Considering not only scientific issues, but also legal and socio-economic issues.
- ▲ Ensuring that the public is informed about the development of standards by providing its recommendations to all participants.
- ▲ Recommending policies and procedures for gathering research and setting standards to the Minister.

ACES is an independent advisory body made up of professionals with expertise in the scientific, economic, social and legal fields.

Membership

Mark Goldberg Chair of ACES Toxicology University of Guelph Guelph	Beth Savan Vice Chair of ACES Environmental Science University of Toronto Toronto
Robert Boldt Occupational Health and Environment Sarnia	Ian Brindle Analytical Chemistry Brock University St. Catharines
Doug Cook Occupational Health and Environment Tauriscale Consultants Ltd Toronto	Helen Henrikson Physiology and Environmental Planning Kingston
Mary Morrison Occupational Health and Safety Ontario Federation of Labour Toronto	Sally Paterson Environmental Chemodynamics University of Toronto Toronto
David Pengelly Air Pollution Epidemiology McMaster University Hamilton	Catherina Spoel Environmental Law Miller Thomson Toronto
Ralph Stanley Public Health Protection Peel Region Brampton	Peter Victor Environmental Economics VIB Research and Consulting Inc Toronto
Keith Winterhalter Plant Ecology Laurentian University Sudbury	

ACES Public Consultation Process

The Minister of the Environment refers to ACES a proposed standard for an environmental contaminant.

ACES then carries out the following activities:

- ▲ Reviews the proposed standard and informs potentially interested parties that the standard is under review.
- ▲ Publishes a Notice of Intent in the Ontario Gazette for the interested public to contact ACES.
- ▲ Provides detailed information to the public upon request and solicits written comments within 60 days of the Notice of Intent.
- ▲ Discusses proposed standard in light of public comments received and consults further with the public, MOE staff and external experts as needed.
- ▲ Prepares and forwards recommendations with rationale to Minister.
- ▲ When the standard has been set, forwards recommendations with rationale to all those who commented on the proposed standard.

For further information:

Advisory Committee on Environmental Standards
Ontario Ministry of the Environment
135 St. Clair Avenue West
Toronto, Ontario M4V 1P5
(416) 323-5034

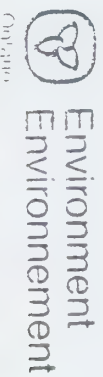


100% recycled
Post-consumer fibre
No toxic inks

Comité consultatif sur les normes environnementales

Le Comité consultatif sur les normes environnementales a été créé en mai 1990. Il a pour mandat de contribuer à l'innovation de la qualité du milieu naturel; à cette fin, il présente au ministre de l'Environnement des recommandations sur l'établissement de normes solides et pratiques en matière de polluants.

CCNE



Le Comité a les responsabilités suivantes :

- ▲ tenir un processus ouvert de consultation du public sur les normes proposées afin de donner aux parties intéressées l'occasion de faire connaître leurs points de vue
- ▲ examiner des questions scientifiques, juridiques et socioéconomiques
- ▲ veiller à ce que le public soit au courant de l'établissement de normes en faisant part de ses recommandations à tous les participants
- ▲ recommander au ministre des politiques et des procédés en matière de compilation de travaux de recherche et d'établissement de normes

Le Comité consultatif sur les normes environnementales est un organisme consultatif indépendant qui regroupe des professionnels spécialisés dans les domaines des sciences, du droit, de l'économie et des sciences sociales.

Membres du comité

Mark Goldberg Président du comité Toxicologie Université de Guelph Guelph	Bob Savan Vice-président du comité Sciences de l'environnement Université de Toronto Toronto
Robert Baldi Sécurité au travail et protection de l'environnement Sarnia	Ian Brindle Chimie analytique Université Brock St. Catharines
Doug Cook Sécurité au travail et protection de l'environnement Taurascle Consultants Ltd. Toronto	Helen Henrikson Physiologie et planification environnementale Kingston
Marc Morrison Santé et Sécurité au travail Fédération du travail de l'Ontario Toronto	Sally Paterson Chimiodynamique de l'environnement Université de Toronto Toronto
David Pengelly Épidémiologie de la pollution atmosphérique Université McMaster Hamilton	Catherina Spoel Droit de l'environnement Miller Thomson Toronto
Ralph Stanley Protection de la santé publique Région de Peel Brampton	Peter Victor Économie de l'environnement VHB Research and Consulting Inc. Toronto
	Koeth Winterhalder Écologie végétale Université Lauréenne Sudbury

CCNE processus de consultation du public

Le ministre de l'Environnement présente au comité une norme proposée pour un polluant.

Le comité fait ensuite ce qui suit :

- ▲ il passe en revue la norme proposée et avise les parties pouvant être intéressées de la tenue de cet examen
- ▲ il publie un avis d'intention dans la *Gazette de l'Ontario* pour permettre aux personnes intéressées de communiquer avec ses membres
- ▲ il fournit de la documentation détaillée aux personnes qui en font la demande et incite le public à soumettre par écrit ses commentaires dans les 60 jours qui suivent la publication de l'avis
- ▲ il étudie la norme proposée à la lumière des commentaires du public et consulte au besoin le grand public, le personnel du Ministère et des spécialistes indépendants
- ▲ il rédige ses recommandations et les présente au ministre accompagnées d'exposés raisonnés
- ▲ une fois que la norme a été établie, il fait parvenir ses recommandations accompagnées d'exposés raisonnés à toutes les personnes qui ont soumis leurs observations au sujet de la norme proposée

Pour de plus amples renseignements :

Comité consultatif sur les normes
environnementales
Ministère de l'Environnement de l'Ontario
135, avenue St. Clair ouest,
Toronto (Ontario) M4V 1P6
(416) 323-5034



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SEMINAR

MUNICIPALITIES AND THE ENVIRONMENT: TRUTH OR CONSEQUENCES

FRIDAY, OCTOBER 18, 1991
9:00 A.M. - 3:30 P.M.

MANUFACTURERS LIFE INSURANCE CO.
200 BLOOR STREET EAST (MAIN FLOOR THEATRE)
TORONTO, ONTARIO

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The following program has been designed to address environmental issues from the unique perspective of municipalities. It will be of interest to municipal councillors and staff, as well as their legal advisers.

PROGRAM

8:00 a.m.	REGISTRATION AND COFFEE
9:00 a.m. - 9:15 a.m.	INTRODUCTORY REMARKS Lex Bullock Borden & Elliot
9:15 a.m. - 10:00 a.m.	OPENING ADDRESS "The New Realities of Environmental Regulation" Gary Gallon President Environmental Economics International
10:00 a.m.	COFFEE BREAK
10:15 a.m. - 12:15 p.m.	THE LIABILITY OF MUNICIPALITIES FOR ENVIRONMENTAL WRONGS . Personal liability of councillors and senior staff . Municipal liability for sale of contaminated lands Maureen Houston Borden & Elliot

- . Municipal liability for the approval of development of contaminated lands
- . Cleanup obligations/liabilities for non-compliance

Harvey Stone
Borden & Elliot

- . How to avoid liability

Richard Laughton
President
Pollutech Ltd.

12:15 p.m.

LUNCHEON

1:30 p.m. -
3:30 p.m.

NEW PROVINCIAL ENVIRONMENTAL CONTROLS
ON MUNICIPAL PLANNING

- . Provincial policy statements and declarations of provincial interest
- . Environmental Assessments of official plan amendments and rezoning by-laws

Helen Lepek
Principal
Templeton-Lepek Limited
Planning Consultants

Nancey Mather, P.Eng.
Partner
Cosburn, Patterson, Wardman
Environmental Engineering Consultants

Stanley M. Makuch
Borden & Elliott

- . The Greening of the Ontario Municipal Board (an examination of recent decisions)

Lex Bullock
Borden & Elliot

- . The impact of the proposed Environmental Bill of Rights on municipalities

Fredrick Coburn
Environmental Lawyer
Borden & Elliot



**Philips
Planning
+ Engineering
Limited**

3215 North Service Road
Box 220, Burlington, Ontario
L7R 3Y2
Telephone: (416) 335-2353
(416) 525-5981
FAX (416) 335-1414

3c)

September 26, 1991
Our File: 91073-10

Mr. J. Prentice
Chairman's Advisory Committee on
Environment Issues
c/o Clerks Department
119 King Street West, 15th Floor
Hamilton, Ontario
L8N 3V9

Dear Mr. J. Prentice:

RE: Class Environmental Assessment
Ancaster Creek
Flood and Erosion Control Project
Town of Ancaster

Based on the findings documented in a recent Flood Damage Reduction Program study, the Hamilton Region Conservation Authority has commissioned a Class Environmental Assessment in order to address flooding and erosion concerns on the Ancaster/Sulphur Creek systems. The previous study identified 45 +/- buildings affected during a Regulatory event; in addition, a former TH&B railway embankment at the downstream limit of the study area creates a 16 to 17 m backwater, causing considerable concern with respect to stability and culvert integrity (ref. location map).

Philips Planning + Engineering Limited will act as the lead consultant in the preparation of this Class Environmental Assessment, supported by Golder Associates (Geotechnical), C. Portt and Associates (Aquatic Biology) and James Dougan and Associates (Terrestrial Biology). This Consortium, along with the Hamilton Region Conservation Authority, hereby notify your agency of our intent to proceed with this project under the planning and design guidelines prescribed in the "Class Environmental Assessment for Water Management Structures", March 1986 (Amended February, 1991).

A Company of the Philips Consulting Group

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—

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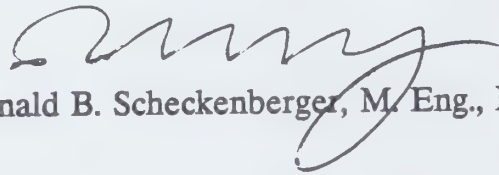
Philips Planning and Engineering Ltd.

Clerks Department
September 26, 1991
Page 2

Should your agency have any concerns or issues which should be addressed, please forward your comments to the undersigned. At the present time it is expected that the first Public Open House will be held some time in January 1992, during which your attendance would be welcome.

Yours very truly,

PHILIPS PLANNING + ENGINEERING LIMITED

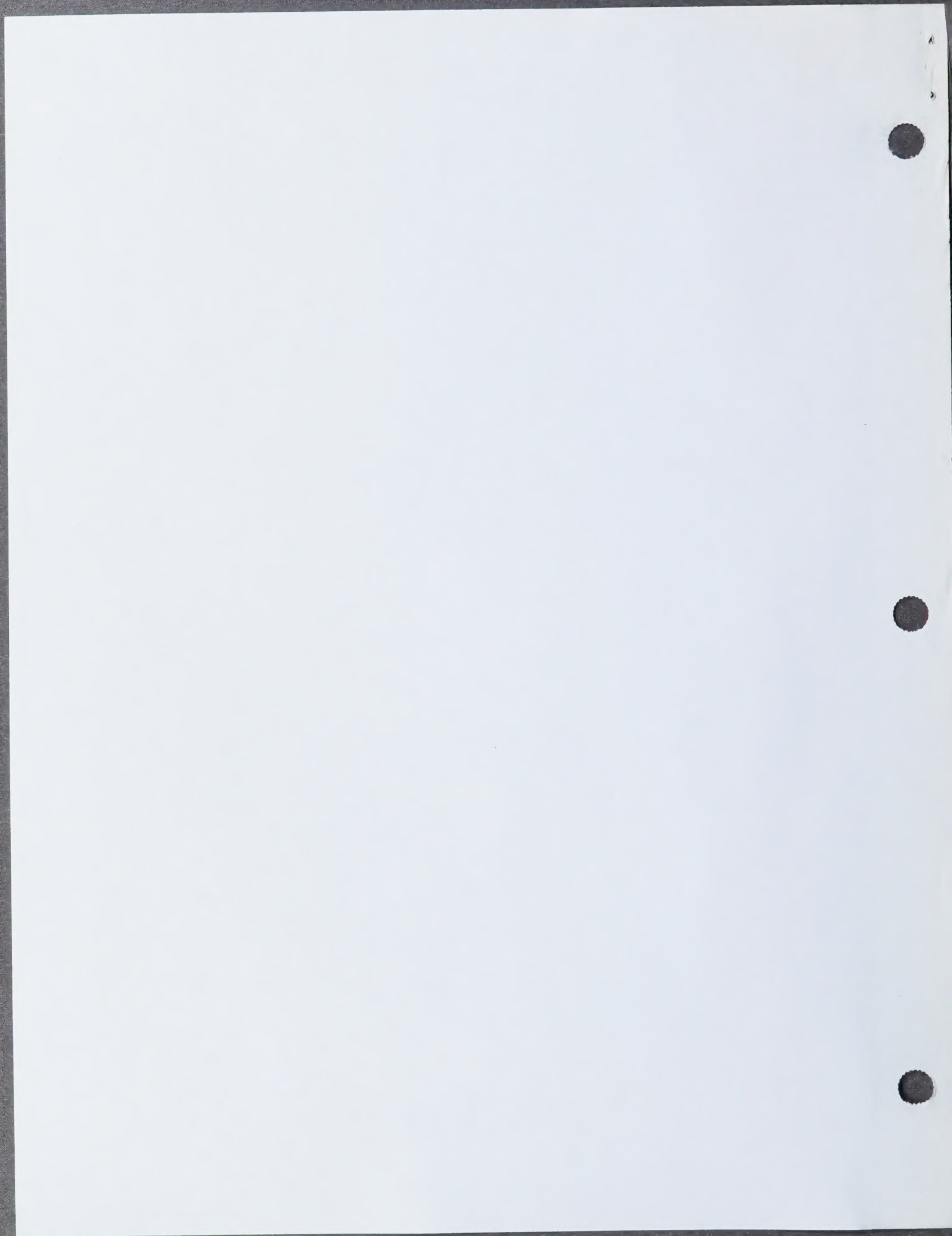
A handwritten signature in dark ink, appearing to read 'RBS', with a large, sweeping flourish extending from the end of the signature.

Per: Ronald B. Scheckenberger, M. Eng., P. Eng.

RBS/pod



HAMILTON REGION CONSERVATION AUTHORITY	
CLASS ENVIRONMENTAL ASSESSMENT	
ANCASTER CREEK	
FLOOD & EROSION CONTROL PROJECT	
LOCATION MAP	
 Phillips Planning & Engineering Limited	FIG. 1
91073	



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